

## SYMPOSIUM ABSTRACTS

### SAA 71<sup>st</sup> Annual Meeting, San Juan Puerto Rico

#### [1] OPENING SESSION • ISLANDS IN THE STREAM: INTERISLAND AND CONTINENTAL INTERACTION IN THE CARIBBEAN

*(Sponsored by SAA Annual Meeting Program Committee)*

The history of the Caribbean has been a dynamic one that has included a long sequence of social, cultural, and political processes. Although many of these processes have occurred within the context of local communities, regions, or islands, they have also included interaction between islands and, in some occasions, with the continents. This session discusses several ancient and colonial cases where these last types of interaction may have had a role in the social, cultural, and political development of the islands.

#### [2] POSTER SYMPOSIUM • LANDSCAPE RESEARCH AND HERITAGE PRESERVATION: COLLABORATIVE APPROACHES

Nowhere are collaborations between archaeologists and American Indian tribes more visible—and necessary—than in the realms of landscape and heritage preservation. Landscapes are complex phenomena created by unique and contingent biological, geological, and human histories. Understanding and protecting them requires collaboration in research, management, and planning, and appreciation for the contributions of different epistemologies. Archaeologists, natural scientists, land managers and native peoples have different perspectives on how to elicit meaning from a landscape, explain its evolution, and derive implications for its future. We present complementary approaches that tribal and archaeological knowledge and values contribute to understanding landscape history.

#### [3] POSTER SYMPOSIUM • GIS AND ARCHAEOLOGICAL THEORY: UNDERSTANDING POPULATION DYNAMICS, SOCIOPOLITICAL CHANGE, AND SETTLEMENT PATTERNS

The recent use of GIS in archaeological research has greatly improved our ability to visualize and interpret large multivariate data sets. The statistical results of these studies have been impressive. Unfortunately, the integration of GIS analyses with anthropological and demographic theory has yet to reach the same level of sophistication. Using GIS to build and test theories regarding demographic processes and cultural development has the potential to improve our understanding of how ancient people interacted with their natural and cultural environments. This session focuses on research that combines GIS analyses with anthropological and demographic theory.

#### [4] POSTER SESSION • ANDEAN ARCHAEOLOGY

#### [5] POSTER SESSION • HISTORICAL ARCHAEOLOGY

#### [6] POSTER SESSION • ARCHAEOLOGY'S CONTRIBUTION TO THE PRESENT AND FUTURE

#### [7] SYMPOSIUM • EARLY VILLAGE SOCIETY IN GLOBAL PERSPECTIVE

The transition to agricultural village lifeways was a process undergone by many prehistoric societies in many parts of the world. As such, this transition constitutes what Julian Steward called a "phenomenon of limited occurrence," a constellation of social, cultural, and economic forces, pressures, adaptations, and accommodations that operated in comparable ways in many of these prehistoric contexts. This symposium brings together papers from several regions of the world in order to identify and discuss a range of social processes, tensions, and transformations that characterize the dynamics of early villages worldwide and that may be fruitfully employed in cross-cultural analysis.

#### [8] SYMPOSIUM • NEW WORLD SHELLMOUNDS AND SHELLMIDDENS: A BICOASTAL COMPARISON

*(Sponsored by SAA Committee on the Americas)*

We characterize New World Atlantic and Pacific coastal occupations and explore the concepts of shellmound and shellmidden. Archaeology has long investigated mounds composed primarily of shell and fish bone. There are two lines of interpretation about site function and formation processes: one sees sites as domestic spaces and mounds as the result of midden accumulation; the other considers sites as funerary spaces in which faunal remains are grave goods and building material. We evaluate whether these perspectives are socially distinct

realities that may or may not be coterminous in any given site, or if they result from different research agendas.

[9] SYMPOSIUM • **DEDICATED TO THE REAL COSTEÑO: PAPERS IN HONOR OF FREDERICK J. BOVE**  
Archaeological remains of the Pacific coast of southern Mesoamerica record a number of key developments in Mesoamerican prehistory, from early agricultural impacts on the tropical forest to Pipil immigration during the 14th century. This symposium will present results related to the culture history of the Pacific coast. Key features of this record have been brought to light by survey and excavation projects of Fred Bove and collaborators over the past 30 years. Bove dedicated his 1989 edited volume "to the costeños," and we think it is fitting that we dedicate a symposium synthesizing results of recent research on the Pacific coast to the real costeño.

[10] SYMPOSIUM • **BIOARCHAEOLOGICAL INSIGHTS INTO ANCIENT IMPERIALISM: PERSPECTIVES FROM THE OLD AND NEW WORLDS**

Archaeological studies of imperialism have examined changes in material culture, settlement patterns, and the built environment, yet the effect of imperialism on the body, both as a physical and social entity remain less explored. This session demonstrates that skeletal analysis is not an end in itself, but when situated within its archaeological context and placed in a theoretical framework aimed at elucidating past imperial strategies and effects, bioarchaeology can address issues such as the role of militarism and violence; ethnogenesis; use of the body in ritual; forced migration; and unequal access to resources, among others. The papers cover a wide geographical and temporal range to highlight similar anthropological themes addressed by those studying ancient empires.

[11] FORUM • **STORIES AND STRATEGIES: DIALOGUES ON EQUITY ISSUES IN ARCHAEOLOGY**

*(Sponsored by SAA Committee on the Status of Women in Archaeology)*

Equity issues in archaeology have been addressed in a variety of ways at different moments in the history of our discipline. Recent survey data on the perceptions and status of different demographics within archaeology come from the SAA Member Needs Assessment Survey and the jointly sponsored salary survey. These surveys demonstrate significant differences in how different individuals and groups of individuals experience being an archaeologist. This forum is centered on several small focus groups that will discuss issues of participation, representation, and ethics. These groups will be brought together to discuss strategies for addressing equity issues in the future.

[12] GENERAL SESSION • **CERAMIC ANALYSES IN SOUTH AMERICA**

[13] SYMPOSIUM • **WORKING IT: ARCHAEOLOGICAL APPROACHES TO LABOR, LEISURE, AND PLACE**

The contributors cast a critical eye upon two pairs of social/spatial categories central to archaeological thought: work/leisure and workplace/residence. These papers focus on the social relations, practices, and lived experiences within and between these social/spatial categories. Practices and experiences are at once structured by spaces, while they simultaneously construct/reconstruct ideas of both the social and the spatial. We attempt to examine the often neglected conceptual and spatial linkages between these categories of activity and place, revealing the assumptions that underlie these seemingly dichotomous social constructions. We seek to build historically contingent and specific understandings of labor, leisure, and place.

[14] GENERAL SESSION • **MESOAMERICAN AGRICULTURE, DIET AND POPULATION**

[15] SYMPOSIUM • **ARCHAEOLOGY OF RELIGION AND RITUAL**

Religion is dynamic, constantly being crafted (through symbols and myths) and being enacted (through the practice of ritual acts). Ancient religious life is irreducibly complex and our understanding of it is partial. Yet, it seems possible to go beyond the particulars of specific cultures and to theorize. This session explores the theoretical and methodological approaches to an archaeology of religion, specifically, how we identify the material remains of religious life in the archaeological record and the extent to which we may see religion as a force in other domains such as ethnicity, political economy or gender.

[16] SYMPOSIUM • **NEW METHODS AND TECHNIQUES IN THE STUDY OF MATERIAL CULTURE FROM THE CARIBBEAN**

During the past years, Caribbean archaeologists have used and developed new methods and

techniques for the study of material culture, such as provenance studies, usewear analysis, starch residue and phytolith analysis, experimental research, ethoarchaeological studies, geochemical analysis and DNA-studies. These approaches have shown their merits in recently excavated sites throughout the region and have provided new information on technological systems, mobility, exchange and social organization. The purpose here is to bring these innovative techniques together and to assess possible avenues of mutual benefits and integration. This may lead to new research questions for the archaeology of the Caribbean in general.

[17] SYMPOSIUM • **INTERDISCIPLINARY APPROACHES TO UNDERSTANDING THE OLDOWAN**

*(Sponsored by Wenner-Gren Foundation of Anthropological Research)*

The emergence of material culture is arguably one of the most significant events in human evolution. Discoveries from ongoing field projects and re-analyses of previously excavated collections have expanded our conceptual framework of early stone tools. This is true for Oldowan industries in Africa as well as the earliest evidence of these industries in Eurasia. The most evident conclusion of the newest round of research on "Oldowan" industries is that these assemblages are found in diverse contexts. This symposium will incorporate a variety of perspectives on Plio-Pleistocene sites providing a unique investigation of Oldowan hominin behavior.

[18] SYMPOSIUM • **FORENSIC ARCHAEOLOGY**

Forensic archaeology is a two-fold field straddling both the ancient and modern world. In the context of a criminal investigation, the application of archaeological techniques to disaster scenes, mass graves, and shallow burials, provides law enforcement officials with a wealth of information including depositional history and the recovery of small finds. From "ground zero" to several recent cases of homicide, the utilization of such skills is on the increase as more police services around the world are exposed to their benefits. In ancient contexts, the utilization of forensic techniques can better our understanding of burial sites, human remains, and material culture. Facial reconstruction, cause of death determination, and even fingerprinting are all forensic fields that can and have greatly contributed to archaeology. This session aims to discuss current research, case studies, and the theory and methodology behind forensic archaeological practices.

[19] SYMPOSIUM • **THE SPREAD OF AGRICULTURE IN EUROPE: LOOKING FORWARD TO A NEW CONSENSUS**

Population dispersal models are once again becoming the dominant explanation for the spread of agriculture in Europe and beyond. Such models predominantly draw on recent advances in the study of molecular and classical genetic markers, comparative linguistics and radiocarbon dating and are based on high-level generalizations that overlook the complexity of regional (pre)histories and the role of local Mesolithic communities in agricultural transition. This session considers methodological and interpretive problems within the demic diffusion paradigm and offers cogent reasons for more nuanced approaches; aims to identify new questions, and work towards establishing a new consensus for archaeologists, geneticists and anthropologists.

[20] *[withdrawn]*

[21] SYMPOSIUM • **GENDER IN THE ANDES**

Where archaeology has addressed gender in the Andes it has often been constrained by pictures painted in the Spanish chronicles. These records, while remarkable for their details and potential insights, tend to assume much about males and masculinity and confine women to rather marginal roles – virgins, wives and witches. Gender in the Andes will address gendered perspectives on societies throughout the Andean region in an attempt to critique and look beyond the models available from historical records. The scope of the papers represent a wide range of times and places in the history of complex societies in western South America.

[22] SYMPOSIUM • **GEOPROSPECTION AND HERITAGE MANAGEMENT**

Geoprospection - magnetic, electromagnetic, acoustic and radar techniques -have become increasingly used in heritage management projects. "Heritage" refers to those archaeological resources managed by state and federal agencies and include parks, forests, wildlife areas, etc. Our presentations include sites found at U.S. state parks (Etowah Mounds); public cemeteries (Dallas, TX); provincial parks in Italy (Sangro-Abruzzo), as well as more strictly methodological papers concerning geoprospection and archaeological resources per se.

[23] SYMPOSIUM • **THE GULF COAST OLMEC SYMPOSIUM**

During the Formative period (circa 1800 BC to AD 150), significant portions of the Southern Gulf Coast region of Tabasco and Veracruz, Mexico were inhabited by the Olmec, one of Mesoamerica's earliest complex societies. Recently, innovative methodological and theoretical approaches have been combined with traditional survey and excavation techniques to address questions concerning demography and settlement patterns, ceramic chronologies, sociopolitical organization, and cultural continuity in the region. Archaeologists from Mexico and the United States will present accounts of their work and results from ongoing field and research projects that shed new light on this ancient culture.

[24] FORUM • **REVISITING THE ADVISORY COUNCIL ON HISTORIC PRESERVATION'S HUMAN REMAINS AND GRAVE GOODS POLICY**

The Advisory Council on Historic Preservation is revising its "Policy Statement Regarding Treatment of Human Remains and Grave Goods," adopted in 1988. The policy is a formal statement, representing the membership's collective thinking, about what to consider in reaching decisions about human remains and funerary objects encountered in Section 106 undertakings. The ACHP's Archaeology Task Force has been seeking comments on the current policy and proposed revisions to it. This forum is designed to provide a place for the professional archaeological community to share its views on the treatment of human remains and funerary objects within the Section 106 process.

[25] GENERAL SESSION • **TRADE IN THE MAYA REGION**

[26] FORUM • **IMPACTS OF THE RAPIDLY CHANGING UNIVERSITY ENVIRONMENT ON STUDENT EDUCATION AND PROFESSIONAL DEVELOPMENT**

*(Sponsored by SAA Student Affairs Committee)*

Department configurations are changing as educational models increasingly emphasize thematic and area studies. A recent trend in higher education is the creation of area studies programs that cross-cut multiple disciplines and departments. Archaeologists are called upon to participate in programs outside their department, like the development of Latin American, East Asian, or urban health, medical or biocultural programs. This forum will discuss issues of how archaeology functions in this environment; effects on student curriculum; benefits or problems for students; projections of changes and challenges in the job market; the effect of cross-discipline boundaries on research and dissertation grant writing.

[27] GENERAL SESSION • **SYMBOLS AND RELIGION IN MEXICO AND THE US SOUTHWEST**

[28] SYMPOSIUM • **NEOLITHIC CATTLE OF THE NORTHEASTERN MEDITERRANEAN**

Papers in this symposium discuss the biological characteristics and cultural significance of cattle (*Bos*) in the Neolithic of the northeastern Mediterranean: Cyprus and Anatolia and as far inland as Armenia. Archaeological research in this region is currently providing researchers with considerable new information about human-cattle interactions in early agricultural societies. These papers offer new data and interpretations as they address the origins and development of cattle domestication; the morphological characteristics of Neolithic cattle; the economic significance of cattle in different regions and across time; and the symbolic roles played by *Bos* in the Anatolian Neolithic.

[29] SYMPOSIUM • **EMBRACING THE DARK SIDE: ON-GOING RESEARCH IN MESOAMERICAN CAVE ARCHAEOLOGY**

Mesoamerican cave archaeology has experienced an explosive growth over the last decade as large-scale surface archaeological investigations, particularly in the Maya area, regularly include a cave component. This has resulted in the rapid accumulation not only of new data, but also of new insights and new analytical techniques. This session attempts to present the results of this latest research. While papers cover a range of issues, the focus on larger social, political and economic issues is noteworthy as a trend in cave archaeology.

[30] SYMPOSIUM • **RECENT WORK ON PREHISTORIC MINES AND QUARRIES**

*(Sponsored by English Heritage, Cambridge, U.K.)*

This symposium will present the results of recent or ongoing projects which focus upon prehistoric extraction sites of all types. Presentations may review evidence of site structure, extraction technology, methods of artifact production, associated artifact assemblages, onward distribution networks and linkages with settlements. Themes such as seasonal use and the scale

of associated settlements (temporary or permanent) can be considered. Through addressing some of these themes it is hoped a more holistic understanding of the role and social importance of prehistoric extraction sites will be gained.

[31] GENERAL SESSION • **THE ARCHAEOLOGY OF SLAVERY AND EMANCIPATION**

[32] SYMPOSIUM • **BEHAVIORAL COMPLEXITY IN THE MIDDLE AND LATE PLEISTOCENE IN AFRICA**

The complexity of human behavior increased dramatically between the end of the Acheulean and the beginning of the Later Stone Age. Many features of modern behavior that are considered characteristic of the Upper Paleolithic first appeared in Africa during the Middle Stone Age. Therefore, the archaeological record of Africa is essential for understanding the evolution of modern behavior. Papers in this session will focus on the archaeological evidence for behavioral change and/or behavioral complexity in technology, typology, function, subsistence, resource exploitation, land use and social and territorial organization in Africa during this important period in human behavioral evolution.

[33] GENERAL SESSION • **MAYA ARCHAEOLOGY IN THE YUCATÁN PENINSULA**

[34] SYMPOSIUM • **THE CHIBCHA EXPANSION AND THE RISE OF COMPLEX SOCIETIES IN THE INTERMEDIATE AREA**

The Intermediate Area of Central and South America lying between Mesoamerica and the Central Andes witnessed the emergence of diverse complex societies in the centuries prior to the Spanish conquest. Most of these societies seem traceable to the northward and southward expansion of Chibchan peoples out of Costa Rica and Panama. Archaeological, ethnohistoric, genetic and linguistic evidence is used to understand better the Chibchan expansion and the factors that impelled it and the rise of many large chiefdoms, especially in Colombia. Some neighboring societies only very distantly related to the Chibchans are also included for study.

[35] GENERAL SESSION • **ARCHAEOLOGY IN THE MIDWESTERN AND NORTHEASTERN US**

[36] GENERAL SESSION • **ARCHAEOLOGY IN FAR WESTERN NORTH AMERICA**

[37] WORKING GROUP • **MAYA-HIGHLAND MEXICAN INTERACTION DURING THE LATE POSTCLASSIC PERIOD**

The theme of interaction for this working group arose from two workshops that were recently held at Tulane University on "Issues in the Provenience and Dating of the Maya Madrid Codex." One of the topics that emerged from the discussions involved the relationship between the Madrid Codex and the Borgia Codex from the central Mexican highlands. As several of the presentations revealed, the two manuscript traditions show significant stylistic and structural parallels, many of which had not been previously noted. The consensus of the participants from the two workshops was that there were substantial contacts between the areas where the two manuscripts were painted, reopening the question of what types of interaction characterized Mesoamerica during the Late Postclassic period when these two codices are believed to have been produced. Continuing research of the Madrid and Borgia codices suggests that the connections between the two manuscripts are not simply the result of diffusion or a shared stylistic tradition, but rather that there was some sort of interchange between the scribes. Interaction of this nature raises the question of what other types of cultural contact can be discerned in the archaeological record of these two areas in Late Postclassic Mesoamerica. Archaeological investigations focusing on this time period in both the northern Maya region and the Mexican highlands provide a body of data and material that has only recently become available to address this issue. Additionally, epigraphic and linguistic studies have reached a new level of sophistication allowing micro-as well as macro-analysis of the textual data. Recent progress on these two fronts makes this an opportune time to revisit these issues. Our proposed working group will set the stage for an in-depth examination of Maya-highland Mexican interaction during the Late Postclassic era in order to place the findings from our codical studies within a broader archaeological, linguistic, and historical context. We have invited a diverse group of scholars whose research with material culture, architecture, iconography, hieroglyphic texts, and linguistics from both areas of Mesoamerica will shed light on these issues. Because of the complexities of codical research and the wide-sweeping nature of the material to be covered by the participants, we believe that a working group, instead of a session of fifteen-minute presentations, will better serve our collective inquiry. Additionally, our working group session brings to the SAA meetings an interdisciplinary group of researchers who might not otherwise attend an archaeological conference.

**[38] POSTER SYMPOSIUM • EXPLORING SOME DIFFERENT FACES OF PUBLIC EDUCATION IN ARCHAEOLOGY TODAY**

*(Sponsored by SAA Public Education Committee)*

Today's public archaeology activities are as diverse as those associated with traditional research. They range from nation-wide programs sponsored by federal agencies such as the USDA Forest Service and the SAA, to individual lesson plans which address specific state and national history and social studies education standards. This symposium will allow participants to glimpse this diversity by examining the Passport in Time program, the new SAA public education Web site, and a lesson plan which uses primary resources to address the solution of an archaeological problem while addressing Pennsylvania history education standards.

**[39] POSTER SYMPOSIUM • ARCHAEOLOGY IN THE HIGH LONESOME: CURRENT RESEARCH ON THE VALLES CALDERA NATIONAL PRESERVE, NEW MEXICO**

The Valles Caldera National Preserve was created in 2000 as a public land management experiment in this 89,000-acre former private ranch nestled inside a volcanic caldera in the Jemez Mountains of northern New Mexico. The posters in this symposium demonstrate how the VCNP Cultural Resources Program is working to integrate research and management in a complex cultural and natural landscape. The presentations report on new surface and subsurface investigations, development of data recovery and information management systems, fire effects monitoring, and the productive integration of archaeology with geology and geomorphology.

**[40] POSTER SESSION • ARCHAEOLOGY IN AFRICA**

**[41] POSTER SESSION • CULTURE CONTACT: INTERACTION AND (SOMETIMES) WARFARE**

**[42] POSTER SESSION • ANALYTICAL TECHNOLOGY APPLICATIONS IN ARCHAEOLOGY**

**[43] POSTER SESSION • ADVANCES IN METHOD AND ANALYSIS IN THE EASTERN US**

**[44] POSTER SESSION • ADVANCES IN ANALYTICAL METHODS**

**[45] FORUM • INTERNATIONAL EFFORTS TO CONTROL SMUGGLING AND DETER LOOTING**

*(Sponsored by SAA Government Affairs Committee)*

For many decades the global community has attempted to prevent the pillaging of and trafficking in the cultural heritage of nations through a framework of international treaties and laws. This forum will examine that framework – its history, its processes, and its effectiveness; and the U.S. participation in this effort. Discussion will also focus on recent developments in Latin America, and how the SAA has worked to increase protections for archaeological materials and objects of cultural patrimony in that region.

**[46] SYMPOSIUM • CENTENNIAL REFLECTIONS AND CHALLENGES: THE ANTIQUITIES ACT OF 1906 AND ITS LEGACY PART I**

*(Sponsored by The Board of Directors of the Society for American Archaeology)*

2006 marks the centennial of the first broad legislative protection for archaeology in the United States. The 1906 Antiquities Act set important legal precedent and indelibly imprinted archaeology within the political domain. The Act was a product of its time and a construct replete with politicking. Political engagement by archaeologists over the past century in efforts to advance the care, protection, and enhancement of archaeological resources is highlighted in this session through discussion of the Antiquities Act and ARPA. The session aims to connect insights garnered from past political contexts to both present and future political strategizing.

**[47] SYMPOSIUM • THE DEAD TELL TALES: JANE E. BUIKSTRA AND NARRATIVES OF THE PAST (PART I)**

One of the most important legacies of Jane Buikstra's work has been the contextualization of biological analyses in archaeological studies. This integrated approach led to the emergence of bioarchaeology, a field that she has shaped into a mature sub-discipline of archaeology. Beginning with her seminal work in Illinois, this multidisciplinary approach has revolutionized archaeological investigation throughout the world, shedding light on hitherto unexplored social and political dimensions of human behavior in the past. This symposium showcases the work of her many students/colleagues in the field of Bioarchaeology, focussing on the Americas, as testament to her pioneering research.

**[48] SYMPOSIUM • THE ART OF THE STATE AND THE STATE OF THE ART: INVESTIGATIONS AT SAN BARTOLO, GUATEMALA**

Investigations at San Bartolo continue to enlighten and expand upon current scholarship by providing significant new data on Maya art, religion, settlement, architecture, environment and technology. The San Bartolo Project has contributed to the field in general via the application of groundbreaking technologies in the areas of reconnaissance, survey and conservation. This symposium will present the most important finds to come out of research at the site since excavations began in 2002. The talks will explore the significance of the spectacular murals for which San Bartolo is known and will contextualize them within the site, the region, and in time.

**[49] SYMPOSIUM • SPATIAL AND SOCIAL ORGANIZATION OF MESOAMERICAN CITIES**

Contributions to this session examine variation in the layout of specific Mesoamerican cities in an effort to determine how these centers were formed and organized. Papers will document spatial patterns from the forms and spatial distributions of residences, public buildings, and artifacts, and use these data to infer social processes and organization principles. The goal is to update Joyce Marcus's (1983) influential paper on Mesoamerican cities and city forms. Authors will present new models and fresh perspectives on Mesoamerican urban form, in addition to new data from fieldwork and archival research.

**[50] SYMPOSIUM • RECENT RESEARCH AND CHANGING VIEWS OF EASTER ISLAND PREHISTORY**

Remote and diminutive Easter Island, long famous for its monumental statues and architecture, has been the focus of recent field research, popularized accounts, and rethinking of some of the orthodox views about its prehistory. In this symposium we bring together field researchers and others to present recent findings and discuss the implications for issues including chronology of the island's colonization; statue manufacture, transport, and relatedness; community patterns; subsistence; "ecocide," genocide, and the alleged "self-destruction" ("collapse"); human genetic variability; and problems with data access, publishing, and the related, urgent needs for historic preservation.

**[51] SYMPOSIUM • THEORIZING THE LATE INTERMEDIATE PERIOD IN THE ANDES: LARGE-SCALE PATTERNS, LOCAL TRAJECTORIES**

This session aims to develop approaches to the Late Intermediate Period (ca. AD 1000-1450) as a whole, rather than as a patchwork of unrelated local histories. Although defined as a time of regional differentiation, this period witnessed several large-scale patterns: defensive settlement; political fragmentation and limited reconsolidation; chulpa burial and ancestor worship; local ethnic identities evident in documentary sources; etc. Are these patterns tied to the collapse of earlier polities, climate, migrations, or interaction between regions? How closely related were coastal and highland developments? This session seeks to theorize such large-scale patterns while incorporating local processes and local political activity.

**[52] SYMPOSIUM • AN EXPLORATORY STUDY INTO THE CHEMICAL CHARACTERIZATION OF CARIBBEAN CERAMICS: IN MEMORY OF JAMES B. PETERSEN**

The Caribbean region is one of the most underrepresented areas in the world for chemical characterization studies of ancient material culture. This session explores the potential of integrating chemical characterization studies with archaeological investigations by examining several recent case studies in historic and prehistoric Caribbean contexts. Questions of ancient population movements, the development of exchange networks within and between various island archipelagoes, and local adaptations and historical developments from ca. 500 BC up to and including the time of Euroamerican contact and colonialism are addressed.

**[53] SYMPOSIUM • THE PRECERAMIC RECORD OF THE CENTRAL ANDES: ASSESSING THE CAUSES AND CONTEXTS OF CULTURAL DIVERSITY FROM A PAN-ANDEAN PERSPECTIVE**

Over 50 years of archaeological and paleoclimatic research in the Central Andes reveals significant variability in Preceramic foraging strategies and changing biogeographic conditions during the Early and Middle Holocene. Yet we do not understand the degree to which settlement and subsistence adaptations reflect changing environmental conditions, migration routes, access to and exploitation of marine and terrestrial resources, interaction with inland cultures, and sociocultural factors. This symposium provides a forum for a comparative assessment of key human ecological variables that have impacted the developmental trajectory of Andean cultural complexes in the coastal plains, inland valleys, and highlands of the Central Andes.

**[54] SYMPOSIUM • USES OF THE PAST: NEGOTIATING SOCIAL CHANGE THROUGH MEMORY AND TRADITION**

Social change creates tension within and between social groups. To mitigate this tension, agents have evoked the past in negotiating new social forms. This session examines how memory and tradition are used and manipulated during and after periods of change. Here, memory and tradition complement each other. Memory—as commemoration, habit, or forgetting—performs both active and passive roles as groups retain and discard ideas, practices, and symbols. Tradition, as past practice, can be employed by agents to subvert or legitimize their present social relations. The papers in this session examine how agents invoked the past to remake their present.

**[55] SYMPOSIUM • ARCHAEOLOGY AND ANTHROPOLOGY OF DEVELOPMENT OF SOCIAL COMPLEXITY DURING THE NEOLITHIC IN EURASIA**

The session will explore the opportunity to develop the knowledge on Neolithic in Eurasia as a result of testing theories about complexity in multi-scale regional context and new archaeological data. We will attempt to approach a variety of problems: technology and social complexity; complexity and the transition from hunter-gathering toward sedentary societies; household as an elementary social unit; marriage, family and kinship; problems of interpretations of Neolithic archaeological data; cognitive archaeology and social complexity; the inhabited place as a product and producer of social complexity; Neolithic social and political organizations; and regional development and common Neolithic concepts.

**[56] SYMPOSIUM • ¿DONDE ESTÁN? RECIENTES INVESTIGACIONES ARQUEOLÓGICAS SOBRE POBLACIÓN NEGRA EN MÉXICO**

La investigación arqueológica Mexicana se ha concentrado en los periodos prehispánicos. Poca investigación se realiza del periodo Colonial y esta se enfoca en la relación indígena-español. En los últimos años se ha puesto énfasis en la población negra que se considera la tercera raíz de la mexicanidad. Desde el punto de vista arqueológico mexicano, los grupos negros son prácticamente desconocidos. Este simposio tiene como objetivo presentar las pocas investigaciones arqueológicas sobre este tema e investigaciones antropológicas en general que pueden proveer valiosa información en la identificación de este grupo cultural en los contextos arqueológicos.

**[57] GENERAL SESSION • EXCHANGE IN THE US SOUTHWEST**

**[58] SYMPOSIUM • INTELLECTUAL CHALLENGES IN ARCHAEOLOGY: CONFRONTING GENDER IN THE WORKPLACE AND IN THE PAST**

*(Sponsored by SAA Women in Archaeology Interest Group)*

Despite recent advances, the field of archaeology remains a difficult arena for tackling issues of gender. This can be true regardless of whether the focus is on gender in the past or in the present. Indeed, there is often overlap between the challenges of engendering the past and coping with present day gender concerns. This symposium provides a forum for the discussion of the challenges surrounding gender which are faced by archaeologists both in the workplace and in their research. These papers address the challenges of doing gender studies in archaeology as well as confronting gender issues in the discipline.

**[59] SYMPOSIUM • THE AFRICAN MIDDLE STONE AGE**

The Middle Stone Age began around 300,000 and continued to around 35,000 years ago in Africa. During this period anatomically modern humans emerged in Africa. Also during this period increasingly sophisticated technological innovations and the earliest evidence for symbolic thought entered into the archaeological record. All of these events are critical for our understanding of modern human origins. This symposium presents current Middle Stone Age research from multiple points of reference, helping to place this important period of our evolution in context.

**[60] SYMPOSIUM • AGENCY, SETTINGS AND ARCHITECTURE IN ANDEAN ARCHAEOLOGY**

This symposium considers the utility of the concept of agency for the analysis of settings and the built environment in ancient Andean societies. It provides an opportunity for Andean archaeologists to debate the ways agency approaches might enhance our understanding of societal dynamics in different areas and time periods. Attempting to understand how humans acted in and experienced the built environment, contributors examine a wide range of issues,



including the relationship between agency and architectural design, cognitive and communicative aspects of the built environment, as well as the ways that settings structure human actions (both individual and collective).

[61] GENERAL SESSION • **EPIPALEOLITHIC AND NEOLITHIC ARCHAEOLOGY**

[62] SYMPOSIUM • **ARCHAEOLOGY IN THREE DIMENSIONS: REAL-LIFE DOCUMENTATION, USE, AND MANAGEMENT OF DIGITAL 3D SCANNING IN CULTURAL HERITAGE**

Those who have seen examples of 3D-scanned archaeological material agree that 3D models are accurate and startlingly realistic. Besides being featured in the media and as novelties, however, these data serve an important and expanding role in mainstream field and lab documentation, analysis, and outreach. Many archaeologists now use scanning technology in their workflows to save time and money, while benefiting from exponentially greater accuracy, resolution, and quality than traditional methods. This symposium openly addresses real-life 3D laser and CT scanning projects that are taking 3D digital documentation to the next level.

[63] GENERAL SESSION • **ARCHAEOLOGY IN SOUTH AND EAST ASIA**

[64] SYMPOSIUM • **AN ETHNOARCHAEOLOGICAL APPROACH TO MAYA RITUAL CAVE USE**

During the development of Maya cave studies ethnographers have played only a minor role. Ethnographic data, however, have been recognized as being extremely valuable in forming models of ancient cave use and in documenting unsuspected practices that have ancient counterparts. As a result, archaeologists are increasingly seeking input from indigenous populations on an array of cave related issues. This session presents the results of ethnographic research carried out in the Guatemalan highlands by archaeologists. The papers focus not simply on rituals within caves but also on community social organization surrounding the access, maintenance, and use of these important features.

[65] SYMPOSIUM • **ARCHAIC TO POSTCLASSIC IN THE SHADOW OF PARICUTIN, MICHOACÁN, MEXICO: NEW INTERDISCIPLINARY RESEARCH COLLABORATING WITH A PURÉPECHA COMMUNITY**

Recent archaeological excavations by interdisciplinary teams, working with Purépecha leadership, in Parangaricutiro (near Parícutin), Michoacán, Mexico, document cultural change in the Meseta Tarasca from Archaic through Late Postclassic. Participants will discuss environmental-geological contexts for human occupation (Archaic rockshelter burial (circa 5000 years ago) and Late Postclassic ceremonial center (circa 1000 years ago) of high elevation mountain plateau, osteological results from an Archaic burial, iconographic analysis and innovative field applications of non-destructive in situ XRF techniques of cliff painting pigments. Ongoing research questions explore origins of Purépecha civilization, iconography, material culture, and economic relationships with Mesoamerica.

[66] GENERAL SESSION • **APPROACHES TO THE PEOPLING OF THE NEW WORLD**

[67] SYMPOSIUM • **EXAMINING REGIONAL INTERACTION IN POSTCLASSIC PERIOD OAXACA: NEW DATA FROM RECENT RESIDENTIAL EXCAVATIONS AND ARTIFACT ANALYSES**

This session synthesizes new data from excavations in a number of regions of Oaxaca that increase our understanding of the participation of Oaxacan polities in networks linking them with Mesoamerica in the Postclassic Period. Participants will consider their data in light of Smith and Berdan's (2003) characterization of "The Postclassic Mesoamerican World as a constellation of distinct societies that were highly integrated primarily through economic and ideological networks." Smith and Berdan note it has been difficult to consider Postclassic Oaxaca at the macroregional level because of the paucity of published archaeological reports and its poorly developed Postclassic Period chronology.

[68] GENERAL SESSION • **ANDEAN STATES - WARI AND INKA**

[69] GENERAL SESSION • **ARCHAEOLOGY IN NORTHERN AND CENTRAL SOUTH AMERICA**

[70] GENERAL SESSION • **ARCHAEOLOGY IN THE CARIBBEAN REGION**

[71] GENERAL SESSION • **ARCHAEOLOGY IN EUROPE AND EURASIA**

[72] GENERAL SESSION • **THE PALEOINDIAN OCCUPATION OF THE NEW WORLD**

**[73] WORKING GROUP • QUARRIES, MINES, WORKSHOPS AND FACTORIES: STANDARDIZING NOMENCLATURE FOR THE ARCHAEOLOGICAL COMMUNITY**

*(Sponsored by LaPorta and Associates, L.L.C., Geological Consultants)*

Prehistoric quarries and mines are an imposing resource. The research of prehistoric quarries and early mines is the definition of interdisciplinary research. It necessarily combines advanced theoretical constructs taken from the geological sciences, mining engineering, cultural anthropology and archaeology. As a result of the interdisciplinary ties needed to understand prehistoric quarries and early mines, a vast, and sometimes unclear, nomenclature has been developed that needs classification and clarification in order for the field to be advanced scientifically. A consensus must be built in the prehistoric quarry and early mine community on what the various interdisciplinary terms mean and what anthropological and archaeological interpretations should, or should not, be inferred by the use of certain terminology. Definitions of quarries, and related terms such as mines, surface mines, exploration pits, galleries, workshops, factories and prospects all need to be made clear and understood to the archaeological community interested in the resource. The intent is to create a working group of scientists and scholars from diverse fields, from all corners of the greater realm of anthropology, archaeology and geology, who have a common interest in quarries and raw material sources; whether that interest is in raw material extraction, the culture of mine communities (i.e. social stratification and ethnicity in living quarry and mine communities), allocation, trade and exchange, chemistry, provenance studies, quarry or mine architecture, sampling design, field methodology and the chain of operation. As the first step in this process, an international working group is being proposed to meet at the 2006 Annual Meeting to explore the differences and similarities of the terms quarries, mines, factories and workshops. Scholarly discussion must be held on what these terms mean, what is implied by their usage, how their usage includes certain archaeological sites, and yet excludes others. Why are these terms important? They provide the foundation for the standardization of a resource that, although finite, can define a landscape. It is also the origin of the raw materials from which most artifacts and features are derived, the starting point of their use-life trajectories. The long-term anthropogenic affects resulting from mineral exploitation convert a uniform landscape to one bearing political reference points. Thus, this is a resource tied in theory and practicality from the most basic artifact analysis to the most complex of prehistoric cultural inferences. This problem is considered to be important enough for the international scientific community to also propose forming an interest group that will meet annually at the SAA meetings.

**[74] POSTER SYMPOSIUM • QUARRIES: WHERE IT ALL BEGAN**

Archaeologists often see quarries as a one-stop-shop for lithic materials, with most interesting behaviors related to stone tool technology occurring away from the quarry. This session focuses on quarries as not only a source of raw material but also as the launching point for succeeding steps of lithic technologies. Participants will present empirical data on quarry source areas and how specific characteristics of raw materials structure subsequent decisions within a raw material economy. Reduction sequences and chaînes opératoires will provide the methodological frameworks for understanding how raw material sources structure the organization of stone tool technology.

**[75] POSTER SYMPOSIUM • RECENT RESEARCH ON MIMBRES AREA POTTERY IN THE AMERICAN SOUTHWEST**

The 11th and 12th centuries witnessed economic, social, and religious changes among the residents of the Mimbres region in southern New Mexico. Recent research has recognized that these changes both influenced, and were influenced by, social dynamics in other regions of the American Southwest and beyond. This poster symposium examines the role that black-on-white pottery played in these social processes. Authors examine multiple dimensions of ceramic variation -including chemical composition, iconography, decorative style, and provenience -to explore changes in economic and social organization, intra- and interregional interaction, and temporal and spatial influences from beyond those of the study area.

**[76] POSTER SESSION • THE MIDDLE AND UPPER PALEOLITHIC IN WESTERN EUROPE**

**[77] POSTER SESSION • NORTHERN AND CENTRAL SOUTH AMERICA**

**[78] POSTER SESSION • HOUSEHOLD AND VILLAGE THROUGHOUT NORTH AMERICA**

**[79] POSTER SESSION • SUBSISTENCE AND ENVIRONMENTAL CHANGE**

[80] POSTER SESSION • **FOOD PRODUCTION, PROCESSING AND CONSUMPTION**[81] FORUM • **CENTENNIAL REFLECTIONS AND CHALLENGES: THE ANTIQUITIES ACT OF 1906 AND ITS LEGACY PART II**

*(Sponsored by The Board of Directors of the Society for American Archaeology)*

2006 marks the centennial of the first broad legislative protection for archaeology in the United States. The 1906 Antiquities Act set important legal precedent and indelibly imprinted archaeology within the political domain. The Act was a product of its time and a construct replete with politicking. Political engagement by archaeologists over the past century in efforts to advance the care, protection, and enhancement of archaeological resources is highlighted in this session through discussion of the Antiquities Act and ARPA. The session aims to connect insights garnered from past political contexts to both present and future political strategizing.

[82] SYMPOSIUM • **THE DEAD TELL TALES: JANE E. BUIKSTRA AND NARRATIVES OF THE PAST (PART II)**

The most important legacy of Jane Buikstra's work in archaeology and physical anthropology has been the contextualization of biological analyses in archaeological studies. This integrated approach led to the emergence of bioarchaeology, now a mature sub-discipline of archaeology. This multidisciplinary approach has revolutionized archaeological investigation throughout the world, shedding light on hitherto unexplored social and political dimensions of human behavior in the past. This symposium showcases the work of her many students/colleagues in the Old World, as well as theoretical contributions in the field and the legacy of Buikstra's pioneering research.

[83] SYMPOSIUM • **DIVERSIFYING PLEISTOCENE SOCIETIES: THEORIES, METHODS, EVIDENCE**

Past research on late Pleistocene hunter-gatherers has focused on the stereotypical actions of a decided minority - namely, those of prime age hunting males, and ignored what the majority that included the women, the children, and the elderly did on a daily basis. This symposium presents "state of the art" developments in theories, modeling, and methods of data analysis, as well as highlights case studies, that diversify our reconstructions of prehistoric societies to include the actions of many different constituencies whose beliefs and behaviors shaped the archaeological record we work with -yet who have to date been largely invisible.

[84] SYMPOSIUM • **NEW PERSPECTIVES ON THE PREHISTORIC SETTLEMENT OF THE CARIBBEAN**

Archaeological investigations in the islands of the Caribbean have provided a wealth of information regarding prehistoric human settlement over a period of 6,000 years or more. A dramatic increase in archaeological and biological research, including advances in DNA analysis, has substantially improved our knowledge of how and when prehistoric Amerindians settled the West Indies, their ancestral affiliations, and the rise of social complexity over time and space. This session examines new data from a host of different perspectives and island groups, providing a strong foundation for understanding patterns of human colonization, settlement, and interaction.

[85] SYMPOSIUM • **RATIONAL ACTORS IN COMPLEX SOCIETIES: DEFENDING THE ENLIGHTENMENT PROJECT IN A DARKENING WORLD**

Anthropological archaeology has seen the pendulum swing from cultural materialism to post-modern historicism; least cost models are denounced as impositions of capitalist economic concepts onto the past; in complex societies resource allocation can best be understood in political or ideological contexts. Contributors to this symposium value both the importance of historically contingent institutions and comparative studies. They will suggest that the emergent dynamic properties of a society's institutional relations can only be evaluated by contrasting them with a model of individual rational calculation.

[86] SYMPOSIUM • **THE OLMEC AND THEIR EARLY FORMATIVE NEIGHBORS**

With contributions from scholars working in the Gulf Coast "Olmec heartland" and other regions of Mesoamerica, this session brings new data to an old but persistent question: What was the nature of the San Lorenzo Horizon (ca. 1200-900 BC)? Was the art style associated with this horizon the product of influence and diffusion from the Gulf Coast region, a convergent process with contributions from many disparate Mesoamerican regions and cultures, or a combination of regionally-specific phenomenon? Session participants approach this fundamental issue and many related questions with respect to empirical data, both old and new, thereby providing solid ground for model building and diverse theoretical perspectives.

**[87] SYMPOSIUM • CLASSIC MAYA POLITICAL ECOLOGY IN UPPER NORTHWESTERN BELIZE**

From 2001-2005, the Blue Creek Regional Political Ecology Project investigated Maya political organization in northwestern Belize. Our research builds on Roseberry's premise that political economies are primarily rooted in local traditions. Important, too, is Scott's concept of a moral economy, in which expectations and obligations were negotiated between status groups reliant on different social and natural resources for their livelihoods. With a temporal focus from the Early Classic through the Late Classic, our research examines environmental change and human response, utilitarian production and resource exploitation, and hinterland settlement and urban construction. We consider our findings in a Lowland Maya geopolitical context.

**[88] FORUM • CAREERS IN ARCHAEOLOGY: OPPORTUNITIES, SKILLS, AND DEMANDS OF NON-ACADEMIC JOBS**

*(Sponsored by SAA Committee on the Status of Women in Archaeology)*

The forum highlights non-academic careers for archaeologists. Participants will discuss a range of occupations for archaeology graduates based on their own professional experience. Each discussant will represent a different career option, address a range of topics including skills needed for such a job, the candidate profile sought, and the variety of professional demands required by the job. The forum aims to assist junior scholars in thinking about career options with an archaeology background. It also hopes to convey information to undergraduate and graduate programs about the demands of non-academic jobs to help them in training students for success in a wide range of professional careers.

**[89] SYMPOSIUM • FISHING FOR THEORY: MODELING THE ECOLOGICAL & SOCIAL DYNAMICS OF FISHING CULTURES**

Fishing cultures provide important contexts for three major theoretical issues in modeling prehistoric change. One issue is what sets in motion a trajectory of increasing social and political complexity. A second issue is where prehistoric humans fit in the dynamics of Holocene ecology. A third issue is the antiquity of fishing as a way of life and the implications of that for prehistoric coastal migrations, especially in the Americas. The papers in this session apply archaeological and ethnographic data from the Americas and Oceania to examine these issues.

**[90] SYMPOSIUM • HUMAN AGENCY AND ANTHROPOGENIC LANDSCAPES IN AMAZONIA**

*(Sponsored by SAA Committee on the Americas)*

Archaeology in Amazonia redefines conceptions of tropical forests and human-environmental relations in them. Diverse small- to medium-sized complex societies existed prior to 1492, which radically transformed many environments. This symposium focuses on aspects of human agency in this dynamic, including: (1) the agency of past and present indigenous peoples in constructing Amazonian landscapes; (2) the agency of scientific (and popular) models in representations and practice of/in Amazonia; and (3) the interaction of contemporary human agency and voice (what viewpoints are heard in public and decision-making arenas) in contentious areas of economic development and indigenous cultural rights.

**[91] SYMPOSIUM • THE EARTH OF THE MODERN: PARALLEL MODERNITIES AND COLONIAL SUBJECTIVITIES**

Colonialism in the past 500 years is defined by a context of oppression, struggle, and resistance. It also occurred in a milieu of rapidly changing worldviews embraced by the nebulous concept of "modernism." Presentations explore archaeology's potential for discerning: (1) the divergent modern tenets emanating from colonial powers in their attempts to mold colonial subjects and subjectivities; (2) how these efforts were appropriated by the colonized to create their own sense of modernity. Underlying these studies is the belief that colonialism should be framed by reference to both power relations and a dramatic, continual reshuffling of a post-medieval order.

**[92] GENERAL SESSION • COMMUNITY ARCHAEOLOGY AND CONTEMPORARY STAKE HOLDERS****[93] SYMPOSIUM • RECENT RESEARCH AT CHEVELON RUIN, AN ANCIENT HOPI VILLAGE IN NORTHEASTERN ARIZONA**

This symposium highlights recent research at Chevelon Ruin, a 500-room, 14th-century Hopi settlement in northeastern Arizona. It is the third largest of the seven villages comprising the Homolovi Settlement Cluster. Within the cluster, Chevelon is unique in being substantially burned, having access to a permanent flowing stream with unique plant and animal resources, and participating in long-distance exchange with neighbors to the south. Thus, Chevelon provides insight into intra-cluster and inter-cluster economic and social relationships and the roles they play in evolving social complexity in nucleated villages.

**[94] FORUM • VISION AND REVISION IN THE SAA CODE OF ETHICS: STEPS TOWARDS INDIGENOUS INCLUSION**

*(Sponsored by The SAA Native American Relations Committee and the SAA Committee on Ethics)*

The SAA Committee on Native American Relations suggests that the SAA Principles of Archaeological Ethics be amended to reflect more clearly the primacy of Native people, Indigenous groups, and descendant communities with regard to cultural resources. When it comes to our own cultural heritage, Native people are more than simply one of the many concerned publics of archaeology. The CNAR has identified a number of concerns and suggestions for amending or expanding the SAA-PAE, modeled after codes of ethics from other post-colonial nations. This forum will explore how other codes have been drafted to address Indigenous concerns.

**[95] SYMPOSIUM • POLITICAL AND CULTURAL TRANSFORMATIONS IN THE JEQUETEPEQUE VALLEY, NORTH COAST, PERU**

This symposium will examine the dynamic political and cultural landscape of the Jequetepeque Valley through time, beginning with the Early Moche period and continuing through Inca conquest. Although fairly limited in its geographical scope, this symposium offers a perspective of incredible time depth in a region that has been characterized by complex sociopolitical processes for millennia, and will shed light on greater trends on the North Coast and the Andes as a whole.

**[96] SYMPOSIUM • CURRENT NORTHEAST PALEOETHNOBOTANY: TEN YEARS LATER**

In the ten years since the original Current Northeast Paleoethnobotany symposium much has changed in our knowledge of when, where, and how Native Americans used various plant species in northeastern North America. Papers in the present symposium provide summaries of this new knowledge, case studies from specific sites and regions, and discussions of on-going theoretical and methodological issues in paleoethnobotany.

**[97] SYMPOSIUM • MISSION POSSIBLE! CULTURAL RESOURCE PRESERVATION ACROSS THE ARMY NATIONAL GUARD: PAPERS IN HONOR OF ALAN WORMSER**

The idea that the Army National Guard would include cultural resource preservation as part of mission requirements is a surprising notion to many. However, the Army National Guard has been building a Cultural Resource Program to address preservation and management of historic properties at Guard installations across the United States. Planning Level Surveys, Eligibility Testing, and Data Recovery Mitigations conducted in accordance with Section 110 and Section 106 requirements yield vital information on America's early cultures and historic communities. Lessons learned from Cultural Resource Management along with new knowledge on prehistoric or historic settlements are discussed in this symposium.

**[98] SYMPOSIUM • STONE TOOLS AND THE EVOLUTION OF HUMAN COGNITION**

Stone tools have been used to reconstruct hominid subsistence strategies, technology and even exchange networks but in recent years, the study of lithics has been extended to subjects within the cognitive realm. Research has primarily focused on skill acquisition and apprenticeship, decision making, the emergence of behavioral modernity, primate tool use, symbolic dimensions of certain classes of lithics, and the relationship between language and standardization. Drawing on field work in Europe, Africa, the Middle East and Indonesia, participants from a variety of disciplines will review current evidence for the relationship between stone tools and the evolution of human cognition.

**[99] SYMPOSIUM • NEW TECHNIQUES TO ADDRESS OLD PROBLEMS: A STUDENT'S PERSPECTIVE**

Graduate education in anthropology increasingly incorporates new technologically based approaches. Using sophisticated computer applications and digital media, graduate students are pursuing anthropological questions regarding site symbolism, human land-use patterns and social organization, site preservation, public archaeology, and museum imagery. In addition, as part of their graduate training, students are constructing research designs with cultural resource management in mind, the results applicable to both researchers and resource managers. This symposium highlights the recent research efforts of thesis and applied graduate students attending Northern Arizona University.

**[100] GENERAL SESSION • LITHIC MATERIALS AND TECHNOLOGY**

[101] GENERAL SESSION • **MAPPING AND THE ARCHAEOLOGY OF LANDSCAPES**[102] POSTER SYMPOSIUM • **AN ARCHAEOLOGY OF PANAMA: PAST AND PRESENT**

Regional surveys conducted in Central and Western Panama, in conjunction with small-scaled excavations, have allowed us to characterize and compare settlement-subsistence patterns over the last 11,500 years. More recent and ongoing field investigations (research and CRM driven) and refinements in laboratory analyses now allow us to further define the above patterns from a temporal, spatial, structural and/or functional standpoint. The goals of this poster symposium are to document the above "recent" investigations/analyses in a public format to a wide audience and to bring together researchers with diverse interests who work in very dispersed localities of Panama.

[103] POSTER SESSION • **CERAMIC ANALYSIS**[104] POSTER SESSION • **MIDWESTERN US COMMUNITY AND RITUAL**[105] POSTER SESSION • **WESTERN US: FROM THE PLAINS TO CALIFORNIA**[106] POSTER SESSION • **ANALYTICAL ADVANCES IN THE US SOUTHWEST**[107] POSTER SESSION • **SUBSISTENCE AND SETTLEMENT IN THE US SOUTHWEST**[108] POSTER SESSION • **US SOUTHWEST: LOCAL DEVELOPMENT AND INTERACTION**[109] SYMPOSIUM • **ADVANCING OUR UNDERSTANDING OF THE HUMAN-PLANT DYNAMIC: PAPERS IN HONOR OF BRUCE D. SMITH**

*(Sponsored by SAA Fryxell Committee)*

The 2005 Fryxell Award in Interdisciplinary Studies honors Bruce D. Smith for his visionary leadership and pioneering research that applies creative and rigorous interdisciplinary scientific methods to answer significant questions about the human past. The papers presented in this symposium highlight innovative approaches to the interdisciplinary study of people-plant relationships, a topic Smith has engaged throughout his career. These papers address such key issues as the emergence of food-producing systems, the origins of an agricultural way of life, and other fundamental details of the human-plant dynamic with emphasis on plant domestication, land-use patterns, and the origins of crop species.

[110] SYMPOSIUM • **THE LEGACY OF BROKEN K: JAMES N. HILL AND AMERICAN ARCHAEOLOGY**

*(Sponsored by AAA Archaeology Division)*

James N. Hill was one of the leading figures in the development of the New Archaeology. His research at Broken K Pueblo is considered classic example of the application of positivism in archaeology. Among Hill's many interests were archaeological philosophy, typology, style, social organization, and human responses to stress. The goal of this session is to honor these contributions nearly 10 years after Hill's death. The participants and discussants document Hill's wide-ranging influences on archaeological method and theory.

[111] SYMPOSIUM • **ACTING AND BELIEVING: AN ARCHAEOLOGY OF BODILY PRACTICES**

Throughout human history, the human body has been the central medium for ideologies, worldviews, social and spiritual values and shared meanings. Our session focuses on the body as the central medium and common ground for communicating and negotiating ideational aspects of human existence worldwide. This perspective builds on the unity of ideational and corporeal experience through the notion of embodied agency. Archaeological themes considered include the representation and evidence of human bodies routinely in fields of social action as varied as sexuality and gender, identity and personhood, ritual, burial and deathways, foodways, violence, and habitational space.

[112] SYMPOSIUM • **ARCHAEOLOGY FROM BEHIND THE BLOCKADE: NEW RESEARCH IN CUBA**

*(Sponsored by SAA Committee on the Americas)*

This symposium, a special session sponsored by the Society for American Archaeology's Committee on the Americas, is a rare opportunity for interaction between Cuban archaeologists and their counterparts elsewhere in the Americas. Seven Cuban professionals, most of them young researchers from different parts of the island who are attending the SAA meetings for the

first time, present the results of their current projects. Two archaeologists from the U.S. and one from Great Britain who are working in Cuba also discuss their work. The symposium is dedicated to Dr. Betty Meggers, whose contributions to Cuban archaeology during four decades of closed doors are legendary.

**[113] SYMPOSIUM • RELIGIOUS AUTHORITY AND RITUAL ARCHITECTURE IN PREHISPANIC SOUTH AMERICA**

This session provides a broad comparative perspective on the development of various modalities and practices of religious authorities and explores their associated material correlates, with a particular emphasis on architecture. Cases from Colombia, Ecuador, Brazil, Uruguay, Peru and Bolivia are presented, providing an important cross-section of ethnographic and archaeological comparisons. Individual papers consider a variety of theoretical issues, such as variations in the bases of religious authority, notions of intentionality and worldview as expressed in architecture and other media, and the constructed environment as an arena of practice.

**[114] SYMPOSIUM • "NO HISTORIES LEFT BEHIND:" THE PRACTICE OF HISTORIC PERIOD ARCHAEOLOGY IN NON-WESTERN/MODERN CONTEXTS**

By conventional definition, the scope of historical archaeology as characterized in Americanist anthropology involves a focus on the spread of the Western world after 1492. The value in considering this as a particular subset of archaeology is certainly a practical one. However, in a more general sense, the practice of archaeology at sites associated with documents unquestionably transcends the chronological and spatial boundaries imposed by this disciplinary classification. How then, are archaeologists working in non-Western and/or non-modern contexts where historical data is also available, meant to use existing theoretical and methodological structures for incorporating text into their own work? Is there some form of rapprochement between Historical Archaeology as defined above, and other text-based archaeologies? The papers in this session will explore the use of texts and documents in archaeological research at sites outside the traditional purvey of historical archaeology, in order to address less often theorized but still essential uses of history in archaeology.

**[115] GENERAL SESSION • ARCHAEOLOGY IN COASTAL PERU**

**[116] SYMPOSIUM • NEW APPROACHES TO THE STUDY OF ANDEAN URBANISM I**

The last decade has witnessed exciting new research on the organization of diverse urban systems in the ancient Andes. Despite these contributions, there is little theoretical consensus on what constitutes the Andean city and its relation to the hinterland. In this session participants will explore critical topics, including mechanisms of city genesis; urban-rural relations; the intersections of city and state; the sociospatial dimensions of city life; and variations in urban landscapes, ideologies, and political economies in different regions of the Andes. Ultimately, the papers are intended to advance our theoretical understanding of the Andean city and prehistoric urbanism more generally.

**[117] GENERAL SESSION • MAYA COSMOLOGY, RITUAL, AND SYMBOLS**

**[118] SYMPOSIUM • LEGACIES ON THE LANDSCAPE: INTEGRATING ARCHAEOLOGY AND ECOLOGY TO UNDERSTAND LONG-TERM HUMAN-ECOSYSTEM INTERACTIONS**

This session presents results from an ongoing collaboration between ecologists and archaeologists to identify the ecological and social conditions under which human land use transforms ecosystems. Through investigations of the semidesert grassland and 14th century prehistoric community situated within Agua Fria National Monument, prehistoric demographic, ceramic, and agricultural field data have been collected that allow us to begin reconstructing the nature and intensity of prehistoric human occupation in this area, and to assess the conditions that influenced the distribution of agricultural activities. Modern-day vegetation data document the nature and extent of the ecological legacies of these practices.

**[119] SYMPOSIUM • INTERREGIONAL EXCHANGE AND ITS ROLE IN THE SOCIO-POLITICAL ORGANISATION OF PRE-HISPANIC LATIN AMERICAN CULTURES: SESSION IN HONOUR OF WARWICK BRAY**

Interregional exchange played an important part in the development of early complex societies. Research into the goods, processes, and people involved in the exchange of goods and the role long-distance exchange had in the development of socio-political complexity has been a focal point in the distinguished career of Dr. Warwick Bray. These papers, presented by colleagues and former students, are designed to highlight both the important role long-distance exchange

played in the development of socio-political complexity in Latin American and the great contributions Warwick Bray has made to this field of study over the past four decades.

**[120] SYMPOSIUM • EXCAVATING COMMUNITIES: RESEARCH FROM THE PROGRAMME FOR BELIZE ARCHAEOLOGICAL PROJECT**

The Programme for Belize Archaeological Project (PfBAP) has maintained a long-term research interest since 1992 in northwestern Belize. The PfBAP serves as an umbrella institution for multiple projects. Investigations reflect the varied research interests operating under the umbrella and range from small settlement to major center studies that incorporate settlement surveys and special detailed mapping in a region of approximately 260,000 acres. Research interests include aspects of resource specialization, identity, representation, autonomous authority, and material culture components. These interests are ultimately pursued with the intent to eventually see social institutions of Maya civilization at the regional level.

**[121] SYMPOSIUM • A SYMMETRICAL ARCHAEOLOGY**

*(Sponsored by The MetaMedia Lab at Stanford and The Stanford Humanities Lab)*

With few exceptions archaeology under-theorized its relationship to the material past prior to Clarke's "loss of innocence." Subsequently, a burgeoning "theory literature" has attempted to systematize the relations between human behaviour and material culture. We argue that the resultant "turns" or diatribe characterizing recent archaeological thinking derives from the shared, humanist presupposition of a radical division between people and things. In accentuating links and crossovers with technoscience studies and empirical philosophy, this session seeks to re-characterize archaeology's unique role in studying mixtures of humans (behaviour) and material things. Such a "symmetry" of people-things forefronts archaeology in an inclusive 'ecology' of "naturecultures."

**[122] SYMPOSIUM • MORE THAN THINGS OR WORDS ALONE: THE INTEGRATION OF DOCUMENTARY AND MATERIAL RECORDS IN THE HISTORIC ARCHAEOLOGY OF LATIN AMERICA**

The convergence of both textual and material data is a critical issue in historic archaeology. Many approaches have been developed and discussed in North America, but little explicit discussion has taken place on the integration of these data sets in the growing field of Latin American historic archaeology. Given the distinctive nature of both documentary and archaeological evidence in Latin America, there are many approaches - both theoretical and methodological - that can be undertaken to create a more informed anthropological understanding of the past. Scholars examining a diversity of populations throughout Latin America will discuss their approaches to this primary issue.

**[123] SYMPOSIUM • CURRENT ISSUES IN THE PRACTICE OF ARCHAEOLOGY IN PUERTO RICO**

*(Sponsored by SAA Indigenous Populations Interest Group)*

This session offers a range of perspectives on contemporary issues and debates surrounding archaeology in Puerto Rico. An important aim of the session is to better understand the ways in which archaeological and indigenous views of Puerto Rico's past converge, differ, and mutually enrich each other. Thus participants include both archaeologists and Taino community members, discussing a broad range of topics related to politics, identity, repatriation, and legal concerns.

**[124] SYMPOSIUM • PRESERVING THE WORLD'S HERITAGE RESOURCES**

*(Sponsored by SAA Public Education Committee)*

The study and preservation of world archaeological and heritage sites has never been more critical than today, as agencies and governments seek to develop their educational and tourism potential without destroying them. A November 2005 working conference on preserving heritage resources convened regional and international experts in the cultural sector—archaeologists, lawyers, experts in development, and others—to seek new strategies for collaborations on public policy, resource management, education, and capacity building. This session will continue the discussion, focusing on sharing information across traditional geographic and disciplinary boundaries and identifying specific issues and strategies for new steps to implement solutions.

**[125] SYMPOSIUM • HUNTER-GATHERER CULTURAL LANDSCAPES: SPATIAL APPROACHES FOR EXPLORING SUBSISTENCE, SETTLEMENT, AND SOCIETY**

This symposium is a forum for recent research on hunter-gatherer cultural landscapes. While landscape studies have primarily focused on the built environment of complex societies, a landscape perspective is also crucial to hunter-gatherer research because it can broaden



traditional views on human-land interactions. Landscape archaeology has the potential to consider complex and subtle historical, environmental, and cultural contexts that are useful to hunter-gatherer studies. The papers in this session utilize spatial approaches to model and examine various aspects of hunter-gatherer landscapes in the Old and New worlds.

**[126] SYMPOSIUM • LATIN AMERICAN ROCK ART: CONSERVATION AND RESEARCH STATUS**

*(Sponsored by SAA Rock Art Interest Group)*

This session brings together rock art researchers from several areas within the Caribbean, Middle and South America. Presentations on the conservation and investigative status of carved and painted images from caves and open-air sites are detailed from such locations as the Guatemala Highlands, Venezuela, Aruba and Puerto Rico. Topics range from the restoration of petroglyphs at a Jamaican cave site, to new recording and dating techniques, and to interpretations of rock art employing different methodological and theoretical approaches.

**[127] FORUM • DEACCESSIONING ARCHAEOLOGICAL COLLECTIONS: WRESTLING WITH A DIFFICULT ISSUE**

*(Sponsored by SAA Committee on Museums, Curation, and Collections)*

The reality of shrinking space for collection storage and the rising costs of curation are causing some, including federal and state agencies, to view deaccessioning as a possible panacea for current woes. Archaeologists and curators examine the types and process of deaccessioning, costs, issues of associated documentation, and lessons learned from inventorying existing federal collections that can inform future deaccessioning. They also consider ways to minimize the need for deaccessioning future collections, such as field collection practices, repository acceptance criteria, and tiered storage standards. Active audience input is sought on these and related issues.

**[128] SYMPOSIUM • RECENT INVESTIGATIONS INTO VIOLENCE IN PREHISTORIC EUROPE FROM THE MESOLITHIC TO THE IRON AGE**

Recent finds have raised questions concerning the prevalence of warfare and violence in prehistoric Europe. While Europe has a rich database upon which to draw for a study of both real and symbolic violence, different languages and research traditions have tended to lead to fragmentation of the evidence. This is in marked contrast to recent integrative work in the Americas. The intention of this session is to bring together a group of researchers investigating and integrating different aspects of prehistoric violence, from the Mesolithic to the Iron Age, and including consideration of skeletal trauma, weaponry, architecture, and iconography.

**[129] SYMPOSIUM • EXPLORING THE ARCHAEOLOGY OF THE JEMEZ PROVINCE, NEW MEXICO**

In recent years, major research has been conducted on the Pueblo occupation of the Jemez province in north-central New Mexico. This research has revealed an exceptional archaeological record of ancestral Pueblo settlement and participation in the major cultural transformations of the late prehispanic and early historic eras in the northern Southwest. In this session we seek to use this research to create a synthesis of the history of Pueblo occupation in this previously poorly understood sector of the northern Southwest, focusing on the region's research history, material culture, settlement patterns, land use, external relations, and contemporary traditional use.

**[130] SYMPOSIUM • PRESERVING SIGNIFICANT ARCHAEOLOGICAL PROPERTIES THROUGH NATIONAL HISTORIC LANDMARK DESIGNATION**

National Historic Landmark (NHL) status has been conferred by the Secretary of the Interior on fewer than 2,400 cultural properties that evoke the broad themes of American history, and only about 300 of those properties are archaeological sites. The papers in this session describe the history of the NHL program, since its inception in 1935, and current efforts of National Park Service regional personnel and their preservation partners to identify and protect sites of national significance. Specific reference will be made to recent nomination initiatives based on current research at sites throughout the United States.

**[131] SYMPOSIUM • THE COCHUAH REGIONAL ARCHAEOLOGICAL SURVEY: RECENT INVESTIGATIONS IN QUINTANA ROO AND YUCATAN**

For six seasons, archaeological research has been conducted within the Cochuah region of Quintana Roo and Yucatan. While the first three seasons were devoted to the site of Yo'okop, recent efforts have focused upon locating and documenting sites elsewhere in the region. Although much of the work has involved basic site location and registration, investigations at

individual sites have focused upon sacbe systems; the relationships between settlement and caves; water management systems; the ceramic affiliations of various sites; continuities between Classic, Postclassic and colonial occupations; the impact of climate change; and other topics.

[132] GENERAL SESSION • **BIOARCHAEOLOGY**

[133] SYMPOSIUM • **ARTIFACT LIFE-CYCLE AND THE ORGANIZATION OF LITHIC TECHNOLOGIES**

Stone tool use-life, curation, and retouch have been featured prominently in the literature on lithic technological organization. Unfortunately, there have been few techniques established that allow researchers to consistently measure and compare the extent to which stone tools have been used, resharpened and reused. The symposium consists of a variety of studies that explore the relationship between lithic artifact retouch as it relates to issues of tool curation and use-life in a context of human organization. A mix of theoretical and methodological papers are presented dealing with new techniques of measurement, applications of existing methods, and explorations of theoretical issues.

[134] GENERAL SESSION • **PUBLIC ARCHAEOLOGY, CULTURAL RESOURCE MANAGEMENT, AND EDUCATION**

[135] SYMPOSIUM • **REFITTING IN MULTIPLE CONTEXTS: WHY AREN'T WE DOING MORE OF IT?**

Refitting studies are increasingly used to study technological processes, economic organization and social interactions. Refitting has become a standard analytical technique. Despite this, refitting remains surprisingly limited to Old World archaeological circles, and continues to be used sparsely by the North American archaeological community. This symposium will assess the current state of refitting studies across a broad geographical and chronological range. In dealing with a broad range of times and places in the archaeological record, these papers will provide an avenue for building frames of reference for the meanings of various refitting patterns in a comparative manner.

[136] WORKING GROUP • **LOWLAND OLMEC HOUSEHOLDS: DOWN HOME WITH "MAW" AND "PAW"**

Our working group offers a focused forum for scholars who are directly engaged in studies of lowland Olmec households. Throughout ancient Mesoamerica, households and their labor provided the crucial energy that fueled cultural emergence. The development of Early Formative Olmec society represents an especially significant example of this process. Our discussions will target basic, yet essential, information on subsistence activities, social relationships, and domestic economies. Through in-depth comparisons of Olmec households across the isthmian plain, we seek a more secure foundation for broader models of lowland Olmec socio-political organization, ideology, emergence, and dissolution.

[137] POSTER SYMPOSIUM • **USING BINFORD'S FRAMES OF REFERENCE AS A FOUNDATION FOR ARCHAEOLOGICAL RESEARCH**

The posters in this symposium utilize variables from the environmental and hunter-gatherer frames of reference constructed by Binford (2001) as the foundation for archaeological research ranging from regional to global scales of comparison. Problems include using prior knowledge to anticipate spatial and temporal patterns of aquatic vs. plant based intensification, examining distributions of particular archaeological features (e.g. earth ovens and burned rock middens) with respect to properties of environments at a regional scale, and exploring large scale patterns in cross-cultural data (hunter gatherer mortuary practices, clothing, and house construction; pastoralist subsistence organization) to inform archaeological research.

[138] POSTER SESSION • **LITHICS: MATERIAL PROCUREMENT, PRODUCTION, AND USE**

[139] POSTER SESSION • **SETTLEMENT IN CENTRAL AND SOUTHERN MESOAMERICA**

[140] POSTER SESSION • **NORTH-CENTRAL AND NORTHERN MESOAMERICA**

[141] POSTER SESSION • **BIOARCHAEOLOGY**

[142] SYMPOSIUM • **THE PRESENT SITUATION OF THE ARCHAEOLOGICAL PATRIMONY IN MEXICO**

Mexico's archaeological wealth is widely known. Distributed throughout the country, and with a great diversity and variability in all of its archaeological sites, Mexico counts with an impressive 35,719 registered sites. Many of them have been studied by local and international, renowned archaeologists, who have contributed to the constant development in pre-Hispanic and

Mesoamerican history. At the moment the amount of new sites is threatened day by day, as a result of the accelerated processes of an excessive urban growth, serious problems of conservation, lack of budget, but mainly the lack of a clear policy in the matter of protection.

[143] GENERAL SESSION • TOPICS IN PALEOANTHROPOLOGY

[144] SYMPOSIUM • HONORING OSCAR J. POLACO AND HIS CONTRIBUTIONS TO LATIN AMERICAN ZOOARCHAEOLOGY

*(Sponsored by SAA Fryxell Committee)*

Latin American zooarchaeology has grown steadily during the past two decades. This growth has depended on such individuals as the Mexican scientist Oscar J. Polaco, recipient of the 2006 Fryxell Award for Interdisciplinary Research. That development and the enhancement of the awareness of the field underscore Polaco's breadth of interests and commitment. His influence, contributions to different areas within zooarchaeology, and achievements are reflected in the presentations through case studies and detailed site reviews covering the late Quaternary of the Americas. They echo Polaco's expertise in ichthyoarchaeology, taxonomy, bone modification, and databases.

[145] SYMPOSIUM • THE ARCHAEOLOGY OF THE CIVIC-CEREMONIAL CENTER OF TIBES, PONCE, PUERTO RICO

This symposium presents the results of the various analyzes realized by the Proyecto Arqueológico del Centro Ceremonial de Tibes. To date, Tibes is the earliest civic-ceremonial center in the Greater Antilles and it seems to represent one of the earliest political and economic centers of institutionalized stratification. The main purpose of this archaeological research is the study of the institutionalization and internal dynamics of stratified societies in the ancient Caribbean from the perspective of the household. The symposium includes presentations on the excavations and the findings of the paleoethnobotanical, faunal, lithological, lithic, osteological, bone chemistry, and regional analyses.

[146] SYMPOSIUM • ARCHAEOLOGY AND SUSTAINABLE DEVELOPMENT

In this session, we will explore the implications of sustainable development theory, which seeks to balance environmental preservation, social equity, and economic development, for the archaeologist. While archaeological resources differ in many ways from natural resources, they too are finite, spatially bounded, and often irreplaceable. What insights does the paradigm of sustainability offer into the ongoing problems of site management, archaeological stewardship, research design, and the equitable use of archaeological resources? This session has been designed to be accessible to all interested scholars, whatever their level of familiarity with sustainability theory.

[147] SYMPOSIUM • MESOAMERICAN ICONOGRAPHY AND SYMBOLS IN ACTION: SMALL-SCALE FIGURINES AS LARGE-SCALE SOCIAL PHENOMENA

The central goal of the session is to situate the symbolism, meanings, values, and functions of Mesoamerican figurines within current understanding of larger social processes. While clay figurines rarely receive the scholarly attention devoted to other iconographic works, they represent a rich dataset from which we can examine ancient Mesoamerican social practice and change. This wealth of conceptual information derives, in part, from figurines' unique imagery as compared with other types of media, from their distinctive role in productive and exchange systems, and from their significance in producing, maintaining, and negotiating social ideals and hierarchies.

[148] SYMPOSIUM • INTEGRATING GEOSPATIAL PERSPECTIVES AND EDUCATION IN ARCHAEOLOGY

*(Sponsored by Center for Spatially Integrated Social Science (CSISS))*

Many scholars, professionals, and students have begun to employ geospatial analysis in their research; however, the teaching of geospatial thinking is still in its formative stages. Archaeologists deal with information that is inherently spatial in nature; thus archaeology provides an ideal setting to develop spatial thinking. This symposium focuses on geospatially related topics including instructional tools, spatial methodologies, and teaching philosophies as they relate to integrating geospatial perspectives in archaeology and the broader discipline of anthropology. The session's goals and objectives were developed, in part, from collaborative efforts with the Center for Spatially Integrated Social Science (CSISS) SPACE Program.

[149] SYMPOSIUM • **NEW APPROACHES TO THE STUDY OF ANDEAN URBANISM II**

The last decade has witnessed exciting new research on the organization of diverse urban systems in the ancient Andes. Despite these contributions, there is little theoretical consensus on what constitutes the Andean city and its relation to the hinterland. In this session participants will explore critical topics, including mechanisms of city genesis; urban-rural relations; the intersections of city and state; the sociospatial dimensions of city life; and variations in urban landscapes, ideologies, and political economies in different regions of the Andes. Ultimately, the papers are intended to advance our theoretical understanding of the Andean city and prehistoric urbanism more generally.

[150] GENERAL SESSION • **LATE STONE AGE AND UPPER PALEOLITHIC ARCHAEOLOGY**[151] SYMPOSIUM • **THE GENEALOGIES OF EMPIRES: THE PAST IN THE PRESENT**

The following session assesses the archaeological fascination with empires including the discipline's own genealogical investment to this particular area of study. This kind of analyses is the more essential when the current globalization paradigm underlines the importance of imperial modes of organization in the transnational production of identities and livelihood all over the world, including the discipline's own intellectual survival. Ultimately, the session looks to contribute to the growing studies of the political production of the past, and how these particular political projects, studying empires, inherently contributes to modern forms of domination and agency.

[152] GENERAL SESSION • **AGRICULTURE AND SUBSISTENCE IN WESTERN SOUTH AMERICA**[153] SYMPOSIUM • **COPPER AGE SOCIAL ORGANIZATION ON THE GREAT HUNGARIAN PLAIN: THE KÖRÖS REGIONAL ARCHAEOLOGICAL PROJECT, 2005**

The transition from the Neolithic (ca. 6,000-4,500 BC) to the Copper Age (ca. 4,500-3,000 BC) in the Carpathian Basin is marked by dramatic changes in social organization -from the distribution of cultural groups across the landscape to the organization of households. Since 1998, the Körös Regional Archaeological Project has been investigating sites in southeastern Hungary to clarify the nature of these changes. This symposium presents the results of the multi-disciplinary research that occurred during 2005, including extensive excavations at the Early Copper Age settlement of Körösladány-Bikeri.

[154] FORUM • **SYMMETRIES AND ASYMMETRIES IN HUNTER-GATHERER ARCHAEOLOGY OF THE AMERICAS**

Latin America and North America are two halves of one supercontinent. Both were occupied by hunter-gatherers for millennia. North and South America have a long history of archaeological exchanges, but one characterized mostly by southerners working at home and northerners working in the south. As a result, the north-south traffic in ideas, collections and archaeologists themselves is asymmetrical. This workshop will discuss both the necessity and consequences of such one-way exchange and explore the prospects for more symmetrical collaboration in the joint study of our hunter-gatherer archaeological records.

[155] GENERAL SESSION • **BIOARCHAEOLOGY AND MORTUARY ANALYSIS IN THE US**[156] SYMPOSIUM • **LATE CLASSIC MAYA SOCIOPOLITICAL ORGANIZATION: INSIGHTS FROM RECENT INVESTIGATIONS AT AGUATECA AND THE PETEXBATUN REGION**

At the beginning of the Late Classic, the dynasty of Dos Pilas and Aguateca founded a new state in the Petexbatun Region that replaced the earlier reign of Tamarindito and Arroyo de Piedra. This political change became the focus of the recent investigations of the Aguateca Archaeological Project. Work at Aguateca and in a regional transect that reached Tamarindito provides new data on the transition of power from Tamarindito to Dos Pilas/Aguateca and asks how it affected the sociopolitical organization in the Petexbatun Region.

[157] SYMPOSIUM • **RECENT RESEARCH IN THE SEMINAL SOUTHERN MAYA ZONE: PRECLASSIC DEVELOPMENTS AT CHOCOLÁ, A MAJOR REGIONAL CENTER**

Recent research at Chocolá, located in the ironically little investigated but long considered seminal Southern Maya Zone, is providing new and fundamental information about events and processes leading to the rise of Classic Maya civilization. Three field seasons (2003-2005) have determined that Chocolá extends at least 6 by 2 kilometers, possesses a significant and eclectic monumental corpus, and, by ca. 600 BC, created a highly sophisticated hydraulics. Three large to very large stone edifices have been excavated, many 14C dates have been obtained, and a

fine-grained GIS-based mapping program is revealing the contours and landscapes of this great early city.

**[158] SYMPOSIUM • THE SOCIAL LIFE OF SEEDS: PALEOETHNOBOTANICAL APPROACHES TO THE BIOGRAPHIES OF PLANTS AND PEOPLE IN ANCIENT MESOAMERICA**

Paleoethnobotany has an increasing presence in Mesoamerican archaeology. Yet many reconstructions of human-plant relationships continue to be either based on indirect sources of data that perpetuate static social models or framed in adaptationist terms that ignore specific social contexts. Plants were persistent nodes of action, constraint, and meaning that existed within spatial, temporal, and social dimensions. Complex social practices, embedded in multiple spatial and temporal scales, mediated the interactions between ancient Mesoamericans and the plant world. This session addresses these relationships, exploring the historical and social contingency of human-plant relationships, and contributes nuanced perspectives to Mesoamerica's past.

**[159] SYMPOSIUM • THE MEANING OF MASONRY: CHOICE AND PRACTICE IN THE CONSTRUCTION OF CLASSIC MAYA BUILDINGS**

Architecture at prominent Maya sites often appears in divergent styles. Although scholars have delineated differences among these styles, few have attempted to elucidate the meanings underlying this variation. By examining architecture at key Classic Period sites, we further explore the significance and meaning of differing architectural styles. More specifically, we ask whether such variation was motivated by cultural factors, such as foreign influences on native traditions, temporal shifts in aesthetic preferences, and "high" versus "low" style, or practical constraints, including the availability of raw materials and the possession of appropriate technology. Relevant data come from throughout the Maya region.

**[160] GENERAL SESSION • US SOUTHWESTERN AGRICULTURE AND AGRICULTURAL ORIGINS**

**[161] SYMPOSIUM • CURRENT TOPICS IN PUERTO RICAN ARCHAEOLOGY: PREHISTORY, HISTORY AND THE FUTURE OF PUERTO RICO'S PAST**

*(Sponsored by Instituto de Cultura Puertorriqueña)*

Puerto Rico's rich cultural heritage has consistently been a subject of study and exploration for archaeologists since the end of the nineteenth century. But while most early archaeologists focused on the prehistory of the island, archaeologists today are exploring all facets of Puerto Rico's archaeological heritage. In this session, we present a sample of the most current research projects being carried out in Puerto Rico. These projects touch upon a variety of topics, such as prehistoric batey sites, historical graffiti, artifact inventories and archaeological resources management policies. The discussion will provide a representative sample of the great variety of subjects and problems being addressed by Puerto Rico's archaeological professionals and offer insights into the direction of future archaeological research in the island.

**[162] GENERAL SESSION • MIDDLE PALEOLITHIC ARCHAEOLOGY**

**[163] SYMPOSIUM • INTEGRATING GEOPHYSICAL AND ARCHAEOLOGICAL TECHNIQUES AT TIWANAKU, BOLIVIA**

Geophysical survey and selective excavation between the primary monuments at Tiwanaku, Bolivia (AD 500-1000) substantially increased our understanding of distribution of ritual and residential spaces in the urban core. The initial results confirm and expand on the extent of period of urban redevelopment that coincides with the apogee of the influence of the polity. Large areas of residential occupation were leveled and resurfaced to create an impressive setting for large scale festivals. The results have impact on concepts of primary state formation and the methodology is applicable to large complex sites worldwide.

**[164] SYMPOSIUM • MAYA ARCHAEOLOGY IN BELIZE**

One of the most prolific areas of current research in Maya Archaeology is the country of Belize. Archaeology in Belize has been significantly facilitated by successful co-operative research projects between the Belizean Government and North American Universities. One such longstanding partnership exists between Belize and Trent University. Numerous scholars can lay claim to a direct association to this partnership via participation in the projects that have resulted from the Trent/Belize connection. Some of this research is highlighted here to show the contributions that such partnerships can make towards the study of Maya Archaeology.

**[165] SYMPOSIUM • RECENT RESEARCH IN THE CHINLE VALLEY OF NORTHEASTERN ARIZONA**

This symposium presents the results of recent excavation, archival analysis, and rock art documentation projects in the Chinle Valley. Papers will be presented on the architecture, chronology, ceramics, and mapping of White House Pueblo; rock art of Canyon del Muerto; pit house abandonment rituals; and Navajo ethnogenesis.

**[166] SYMPOSIUM • CARIBBEAN ARCHAEOLOGICAL RESEARCH AT THE PEABODY MUSEUM OF NATURAL HISTORY, YALE UNIVERSITY: IN MEMORY OF IRVING ROUSE**

Yale University scholars played a pivotal role in the early development of archaeology in the Caribbean basin and the Peabody Museum at Yale holds one of the world's largest systematically collected bodies of archaeological material from this region, spanning the area from the Orinoco River in Venezuela to Puerto Rico and Cuba. In this session we bring together scholars familiar with these collections to present the history of Caribbean archaeology at Yale and to convey the results of research related to these collections. These papers represent completed projects as well as ongoing research.

**[167] SYMPOSIUM • A FIFTH MILLENNIUM CALENDRIC COMPLEX IN PERU**

Recent findings provide data for evaluating the economic bases of the polities that erected the first monumental architecture in the New World in Perú. Solar alignments are linked to flood plain agriculture and fishing at a number of aceramic sites more than 4,000 years ago. Buena Vista in the Chillón Valley is one such site; it features a calendric complex comprised of two components, (1) an offering place alignment at a temple and (2) the gaze of a personified disk, both of which have the same astronomical alignment simultaneously to the sun and to the Andean water constellations.

**[168] SYMPOSIUM • SOCIO-ECONOMIC ORGANIZATION IN THE NORTE CHICO: FROM THE LATE ARCHAIC TO THE LATE INTERMEDIATE**

Recent research on the central coast of Peru documents the dynamic socioeconomic systems of the Norte Chico. Papers represent the continued and changing occupation of this area from the first evidence of monumental architecture to the initial European presence. The shifts in system organization are discussed based on a variety of evidence including settlement pattern, site layout, exchange system, and early historic records which document system variability and stability through time. This variety of archaeological evidence begins to document the shifting socio-economic systems of the Norte Chico.

**[169] SYMPOSIUM • AFRICAN COMPLEX SOCIETIES IN TRANSITION: TRANSFORMATION, CONTINUITY, AND PROCESS IN THE LATER 2ND MILLENNIUM AD**

*(Sponsored by Society for Africanist Archaeologists)*

Africa of the later 2nd millennium AD has been long examined by scholars interested in non-western political systems. The archaeology of African polities in this period has grown dramatically in recent years. This session engages contemporary anthropological approaches to complex societies, exploring factors leading to their growth and decline in Africa over the last 500 years or so. Attention is paid towards exploring variability in African complex societies of this period, and how expanding global connections were locally negotiated. Particular attention is granted towards understanding the political impact of the Indian Ocean trade and the Atlantic slave trade.

**[170] ELECTRONIC SYMPOSIUM • THEORETICAL AND METHODOLOGICAL CONTRIBUTIONS FROM THE HOUSEHOLD PERSPECTIVE**

As both an analytical scale and a topic of study in itself, ancient households affected change and were variably impacted by economic, social, ideological, and political changes at the level of the community, region, and beyond. This symposium brings together current scholarship in household archaeology that offers theoretical and methodological contributions from throughout the Americas. The participants address Formative through historical period cultures, focusing on long-term changes in household organization, the domestic economy, efforts to define the household unit itself, relations with ancient states, the effects of European contact, and sedentism, among other topics.

**[171] GENERAL SESSION • NATIVE AND COLONIAL HISTORY IN THE US SOUTHWEST**

[172] SYMPOSIUM • **CURRENT APPROACHES TO THE USE OF ARCHAEOMETRIC TECHNIQUES IN NORTHEAST RESEARCH AND COMPLIANCE PROJECTS**

The use of archaeometric techniques to analyze prehistoric ceramic, lithic, and metal materials has helped to refine interpretations of Northeast settlement, interaction, and resource procurement. The integration of these techniques in research and compliance projects poses a number of practical challenges that have prevented them from becoming commonplace in regional archaeological research. In this symposium, the problems and pitfalls of the application of archaeometric techniques to material objects are discussed. Case studies are presented that demonstrate the utility of archaeometric studies and summarize how such studies can be used to understand the past.

[173] SYMPOSIUM • **RECENT INVESTIGATIONS IN HIDALGO, MEXICO**

This symposium presents results from several long-term projects in the state of Hidalgo ranging from investigations of Pleistocene Clovis populations to the Postclassic states at Tula and Metztlán.

[174] GENERAL SESSION • **THE FORMATIVE IN MESOAMERICA**

[175] SYMPOSIUM • **ON DOING ARCHAEOLOGY IN PERU: NEW LEGISLATION AND ITS IMPLICATIONS FOR ARCHAEOLOGICAL PRACTICE**

*(Sponsored by The Board of Directors of the Society for American Archaeology)*

The creation of the Colegio de Arqueólogos del Perú (as well as the legislation that established and supports it) has been received by some professionals as a potential obstacle to the continued development of archaeological research in Peru. For others the legislation has called attention to problems that may have existed in the past. In either case, the regulatory changes necessitate an open discussion of the issues confronting future research efforts. We all share a commitment to the continued close collaboration of Peruvian and non-Peruvian investigators. It is hoped that this symposium will facilitate mutual understanding and continued cooperation.

[176] SYMPOSIUM • **COMPLIANCE ARCHAEOLOGY IN PURSUIT OF THE CARIBBEAN'S PAST: HOW ARE WE DOING AND WHAT DO WE HAVE TO SHOW?**

*(Sponsored by SAA Committee on Consulting Archaeology)*

Sections 106 and 110 of the National Historic Preservation Act are the basis for most of the archaeological research conducted in those portions of the Caribbean under the jurisdiction of the U.S. federal government. In complying with the law, the government has sponsored cultural-resources investigations ranging from small surveys to large excavations. In this session, we highlight some of the research performed under the auspices of the federal government in the Caribbean. A discussion is offered evaluating the influence of federal undertakings on the current state of our understanding of the past in the Caribbean.

[177] SYMPOSIUM • **REGIONAL AND COMMUNITY ORGANIZATION IN THE NORTHERN LOWLANDS: PAPERS IN HONOR OF THE LIFE AND LEGACY OF ED KURJACK**

These papers will present the most comprehensive and up-to-date summary of settlement pattern research in the northern Maya lowlands beginning with Ed Kurjack's pioneering work more than four decades ago, such as the relationship between settlement patterns and environmental resources, processes of urbanization and regionalization, mechanisms of sociocultural integration at all scales, social relations between and among households, and applications of airborne and space-based remote sensing, GPS's and GIS. Research at sites that have been continuously researched for decades will be made available, summarized and compared with research at more recently researched sites.

[178] SYMPOSIUM • **QUANTITATIVE INTEGRATION OF ZOOARCHAEOLOGICAL AND ARCHAEOBOTANICAL DATA: A CONSIDERATION OF METHODS AND CASE STUDIES**

Understanding subsistence archaeologically requires that we integrate as many lines of evidence as possible. Scholars have recently emphasized the need for more holistic analyses of food remains, and collaborative publications towards this endeavor have increased. A survey of the literature, however, reveals few attempts to quantitatively integrate archaeobotanical and zooarchaeological data. Given the vastly different methods for recovering/quantifying these data, it is not surprising so few have tackled this problem. Our symposium brings together scholars to (1) address the methodological issues of quantitatively integrating plant and animal data, and (2) attempt integration through the presentation of relevant case studies.

[179] SYMPOSIUM • **THE PERIPHERIES OF TIKAL: NEW PERSPECTIVES**

Completion of the second season of the Re-Evaluation of the Earthworks at Tikal, Guatemala, has produced extensive data from the Tikal hinterland. Much of this data challenges currently accepted understandings of the form, extent, and function of Tikal's "Great Earthwork." Also, settlement and soils data collected during the project allow for a much more refined concept of the context for the earthwork within the periphery-core dynamic of Tikal. The improved understanding of the Tikal hinterlands offers an opportunity to consider new models for the socio-spatial organization of the Tikal polity.

[180] FORUM • **DOES ARCHAEOLOGICAL THEORY EXIST?**

*(Sponsored by Archaeological Dialogues)*

Has theoretical archaeology ever developed into archaeological theory? This forum asks whether a body of theory that is distinctively archaeological actually exists (or should, or can, exist), and of what such theory might consist. What are the structures and practices (journals, conferences, field investigations, etc.) that promote dialogue and theoretical convergence among archaeologists and how are they in tension with those (university departmental structures, specialized journals, professional organizations, national traditions, etc.) that generate fragmentation and intellectual boundaries? The forum provides an international perspective on these centrifugal and centripetal forces and the implications for the conditions of possibility of archaeological theory.

[181] SYMPOSIUM • **GORDON R. WILLEY SYMPOSIUM IN THE HISTORY OF ARCHAEOLOGY: ARCHAEOLOGY IN THE AMERICAS DURING THE XXTH CENTURY--SEVERAL DIFFERENT HISTORIES**  
*(Sponsored by SAA History of Archaeology Interest Group)*

El avance de los estudios de historia de la arqueología en las Américas ha mostrado que no existe una sola forma de verla o entenderla, dada la complejidad de motivos que ha hecho que ésta surgiera en cada país y la interrelación con los museos y universidades de Europa y Estados Unidos. El simposio pretende revisar el estado actual de los estudios en el tema, los logros y las futuras vías de crecimiento, en un mundo cada vez más interrelacionado.

[182] GENERAL SESSION • **CERAMIC ANALYSES IN MESOAMERICA**[183] SYMPOSIUM • **THE ROLE OF ARCHAEOGEOPHYSICAL, ARCHAEOGEOCHEMICAL AND AIRBOURNE REMOTE SENSING IN SOUTHWESTERN US ARCHAEOLOGY**  
*(Sponsored by Carothers Environmental, LLC)*

The role of archaeogeophysical, archaeogeochemical and airborne remote sensing studies in American archaeology has increased with new advances in technologies and techniques. Archaeogeophysical advances have mainly come from Europe in the form of new or improved GPR, magnetic, resistivity, electromagnetic, radiometric and seismic systems that are designed for archaeological investigations and will be discussed. Archaeogeochemical advances in the form of better field and laboratory equipment for LCMS, GCMS and Spectrophotometric studies will also be discussed as will Airborne Remote Sensing studies using TERRASERVER, SPOT and other sub-meter, multispectral imagery.

[184] FORUM • **TOWARD A CYBER-INFRASTRUCTURE FOR ARCHAEOLOGY: TOOLS AND INCENTIVES**  
*(Sponsored by The William and Flora Hewlett Foundation)*

Our 2005 forum agreed that "open-knowledge" digital-dissemination and copyright approaches best meet ethical obligations of preservation, access, and public-education. We continue this discussion to explore specific frameworks to encourage greater knowledge-sharing:

- (1) Data-integration is a common goal in enhancing archaeological communication. How do we achieve data-integration when the heterogeneous nature of archaeology resists consensus definitions and inhibits the development of enabling "ontologies"?
- (2) Beyond data-integration, practicing archaeologists have other concerns (intellectual property worries, reporting obligations, and career development). By exploring "real-world" incentives, can we develop and sustain services that meet individual needs while realizing open knowledge sharing and preservation goals?

[185] SYMPOSIUM • **SOCIAL SPACES AND ACTIVITIES IN THE PAST AND PRESENT: EVALUATING CHEMICAL ANALYSES AND TECHNIQUES FOR ARCHAEOLOGICAL INTERPRETATION**

The analysis of chemical residues on built and natural surfaces continues to be a viable and expanding research tool. For decades, specialists have recovered these invisible traces of human activity in many areas of the world. How these traces are used to make meaningful statements about human activity, however, has not received sufficient attention. New analytical



techniques and interpretive frameworks are bringing back into focus the reason we undertake such studies: to learn about the organization of human activity in the past. Papers in this session focus on these new methods, enhancing and challenging the interpretation of human space use.

**[186] SYMPOSIUM • SOCIAL IDENTITY OR POSTMODERN RAZZLE-DAZZLE? CRITICAL EVALUATIONS OF IDENTITY IN ARCHAEOLOGY**

Is social identity an empty buzzword, inspired by the postmodern indefinable subject, or is there real analytical utility in it? Used enthusiastically by archaeologists in the past 10-15 years to address gender, ethnicity, class, sexuality, life-status, community, and notions of power and agency, the concept of social identity has matured to the point where we may revisit the question of its interpretive power. Does identity offer new insights to our understanding of the past, or does it merely reify the methodological individual in new ways? This session will explore these questions through focused case studies where identity is at issue.

**[187] GENERAL SESSION • ARCHAEOLOGY IN THE EASTERN AND NORTHERN PLAINS**

**[188] SYMPOSIUM • THE MULTIPLE DIMENSIONS OF ARCHAEOLOGICAL LANDSCAPES: PEOPLE, TERRAIN, AND THE STRUCTURED USE OF SPACE**

One consistent concern of archaeological analysis has been how best to deal with the spatial dimension of material culture. Over the past two decades, the concept of landscape has emerged as a means for comprehending the spatial component. In its ability to incorporate observations of both a local and regional nature, this notion facilitates a holistic interpretation of the archaeological record as we find it on and in the ground. Several participants examine problems inherent in explaining how topography affects resource availability and social behavior. Others approach the landscape as a medium for expressing religious and political ideologies.

**[189] SYMPOSIUM • ACROSS THE LAGOON: COMMUNITY ORGANIZATION AND DEVELOPMENT AT LAMANAI AND CHAU HIIX, BELIZE**

This session examines the occupational histories and developmental trajectories of the Maya communities of Lamanai and Chau Hiix, Belize. Located 12 kilometers apart, these sites are distinguished from surrounding Maya communities by their lengthy occupations; they are not only associated with early foundation dates but supported sizable populations during the turbulent Terminal Classic (AD 800-1000) and into the ensuing Postclassic period (AD 1000-1450). The papers draw on 40 combined years of research to examine dominant patterns in material culture at both centers. Presentations consider ceramic, lithic, architectural, mortuary, and settlement data sets to gain insight into questions of subsistence, community development, organization, and interaction.

**[190] GENERAL SESSION • MAYA POLITICS AND REGIONAL ORGANIZATION**

**[191] FORUM • THE REGISTER OF PROFESSIONAL ARCHAEOLOGISTS' NEEDS ASSESSMENT AND ETHICS FORUM**

*(Sponsored by Register of Professional Archaeologists)*

The RPA forum will be divided into two parts. The first part will present the results of RPA's needs assessment and provide an opportunity for SAA members to discuss the future direction of RPA. Items discussed will include continuing professional education, the grievance procedure, and professional accountability. After the needs assessment, the forum will provide SAA members an opportunity to continue the discussion of topics debated during the Ethics Bowl. Topics likely to be discussed include the crisis in curation, repatriation of archaeological materials, tribal consultation, professionalism, and the commercialism of archaeology.

**[192] FORUM • STEPPING OUT: CONTEMPORARY RELEVANCE OF ARCHAEOLOGICAL RESEARCH**

Archaeologists explore transformations and periods of stability at temporal scales unavailable in the contemporary world. We gain insights about society, ideology, practice, process, and ecology not accessible from present observations. Yet contemporary policy makers and specialists in various fields make assumptions without benefit of the knowledge built from archaeological research. So what do archaeologists have to offer toward addressing contemporary issues? How can we inform ideas about conflict, environmental change, urban decay, and crises of identity? We will focus on the contribution of archaeological knowledge to contemporary issues with an active discussion between panelists and audience.

[193] SYMPOSIUM • **SOCIAL COMPLEXITY IN MICHOACAN: TARASCAN STATE FORMATION**

Though traditionally marginalized from Mesoamerican studies, west Mexican archaeology, particularly work in Michoacan, has come of age in providing a variety of research opportunities. Notably, the Late Postclassic Tarascan state provides both an entree to the issues of understanding the emergence and maturation of social complexity and also a suitable comparative case to the better-known models drawn from the Aztec and Maya in central and southeastern Mesoamerica. In examining the current state of research in Pre-Tarascan and Tarascan studies, this symposium adds to the understanding of the emergence and maturation of complex social institutions within the larger Mesoamerican context.

[194] GENERAL SESSION • **THEORY AND METHOD IN THE STUDY OF DIET AND HUMAN ADAPTATION**

[195] SYMPOSIUM • **SIGNALING THEORY IN ARCHAEOLOGY**

Archaeologists have long been fascinated by artifacts at many scales whose creation and use embody investment beyond their practical utility. Signaling theory integrates ideas from economics, sociology, anthropology, and biology in explicit models of the signaling strategies responsible for these phenomena, invented and shared by individuals and groups in response to the shifting historical contexts in which they lived. Our papers show how signaling theory can help archaeologists tease apart the historical dynamics behind extravagant artifacts and assemblages in diverse contexts, ranging from archaic foragers to formative agriculturalists to enslaved plantation workers.

[196] SYMPOSIUM • **ADVANCES IN ROCK ART METHODOLOGIES**

The increased pace of rock art research in recent years has led to advances in rock art methodologies. This symposium will focus on advances in a wide range of rock art research methods. Recent research has included dating methods, statistical techniques, landscape analyses, use of GIS, experimental studies, ethnographic investigations, conservation issues, and other methodologies. This symposium will discuss and demonstrate present methods and suggest research for the future.

[197] ELECTRONIC SYMPOSIUM • **CORE REDUCTION, HAÎNE OPÉRATOIRE, AND OTHER METHODS: THE EPISTEMOLOGIES OF DIFFERENT APPROACHES TO LITHIC ANALYSIS**

Lithic analysis is an increasingly multinational endeavor conducted by researchers with different cultural and disciplinary backgrounds. The debate between proponents of the core reduction sequence and chaîne opératoire approaches has shown that there is a mutual lack of understanding on many fronts. Yet lithic analysis cannot be pigeon-holed into these two types alone. This electronic symposium is designed to provide a venue for discussing the multiple epistemologies, goals, and methods advocated by different practitioners. It is hoped that this dialogue will help clarify the method, theory, and social context of international lithic analysis.

[198] GENERAL SESSION • **SETTLEMENT SYSTEMS IN THE US SOUTHWEST**

[199] SYMPOSIUM • **LOCAL ACTION IN GLOBAL CONTEXT: ADAPTING TO THE HOLOCENE IN IBERIA**

The transition from Pleistocene to Holocene remodeled the world in ways strikingly similar to those noted by the frameworks convention for the Kyoto Protocol. The Iberian Peninsula is a natural laboratory for understanding these processes. From demographic shifts in the Cantabrian refugium to relative constancy in the Mediterranean region, it is a crossroads where widespread European influences overlapped distinctive Iberian traditions. The introduction of agriculture further diversified the patchwork of subsistence strategies. Adaptation to the Holocene in Iberia forms a baseline for understanding the social and economic dynamics of local human response to global climate change.

[200] SYMPOSIUM • **LA ARQUEOLOGÍA EN LA DIRECCIÓN DE ESTUDIOS ARQUEOLÓGICOS**

Este simposio, expondrá a la comunidad académica de la SAA algunas de las investigaciones que desde diversas áreas, tendencias teóricas y temporalidades se están llevando a cabo por la Dirección de Estudios Arqueológicos del Instituto Nacional de Antropología e Historia. Así daremos un panorama de lo que estamos realizando, desde los estudios de arqueología subacuática, hasta los realizados en el área Maya, la costa del Golfo de México, Puebla, la ciudad de México, Hidalgo y Estado de México.

[201] GENERAL SESSION • **ARCHAEOLOGY OF THE AEGEAN REGION**

[202] SYMPOSIUM • **THE CENTRAL AMAZON PROJECT: REGIONAL ARCHAEOLOGY IN THE HEART OF THE AMAZON**

The Central Amazon project started in 1995 as a joint effort of Brazilian and North American archaeologists with the goal of testing hypotheses on the chronology, political organization and the emergence of social complexity among populations settled along the floodplains of the Amazon before the onset of European colonization. This symposium presents the results on chronology, settlement and community patterns obtained by the project. The data shows that the occupation of the Central Amazon was discontinuous, being characterized by hiatuses correlated to climatic changes during the mid-Holocene, as well as cycles of political centralization and decentralization later on.

[203] GENERAL SESSION • **ARCHAEOMETRIC SOURCING STUDIES IN THE US**

[204] GENERAL SESSION • **APPROACHES TO ANALYSIS OF MATERIALS AND LIFEWAYS**

[205] SYMPOSIUM • **ENDURING MOTIVES: RELIGIOUS TRADITIONS OF THE AMERICAS**

Whether viewed as the tethering aspect of habitus or the descent side of Darwinian descent with modification, the concept of tradition plays a basic role in historical sciences. This symposium focuses on long-lived American religious traditions, often regarded as the classical locus of persistence. Emphasis is placed on mnemonic devices and practices including landscape and niche construction, motifs inscribed at the scale of artifact and monument, iconography intimating deep-seated habits and notions of embodiment, the topoi of sky and earth as recurring reference points, and other memory technologies that impinge upon the variable stability of religious traditions.

[206] SYMPOSIUM • **TRANSITIONS: BEYOND ORIGINS IN ARCHAEOLOGICAL RESEARCH. A SYMPOSIUM IN HONOR OF T. DOUGLAS PRICE**

Beginning when most archaeologists focused on "origins" research, Doug Price's career characteristically has highlighted transitions, and over three subsequent decades has intrigued, influenced, and inspired us. Price's colleagues and friends, comprising peers, collaborators, and former students, honor his contribution in global perspective, following recurrent themes in his work -- transitions and dynamic transformative processes. Papers explore method and theory surrounding transitions into social complexity and inequality, in human conceptualization of identity and place, from foraging to farming, and coinciding with the spread of agriculture, as well as the development of new laboratory methods with which to study them.

[207] SYMPOSIUM • **UNDERSTANDING THE ORIGINS OF MONUMENTALITY IN PREHISPANIC LATIN AMERICA**

An analysis of monumentality is ultimately a study of labor, its mobilization as well as the longer-term spiritual awe and political organization that can be generated by such undertakings. The large pyramids and impressive monuments that generate attention in the nuclear zones of Mesoamerica and the Andes thus have profound implications for studying the emergence of political organization in the New World. In this session, comparative and contrastive patterns of early monumental construction projects in Mesoamerica and the Andean area are discussed to illuminate the range of ways that monumentality can function in emergent of complex societies.

[208] SYMPOSIUM • **CAMBIANDO EL PASADO: UNA REVALORACIÓN DEL PERIODO PRECLÁSICO EN LAS TIERRAS BAJAS MAYAS**

De acuerdo con la información recopilada como producto de las investigaciones arqueológicas realizadas desde finales del siglo XX en las Tierras Bajas Mayas, la última mitad del periodo Preclásico tiene que ser revalorado como el momento donde las estructuras de poder y la ideología de la cultura maya ya se encuentran plenamente consolidadas. Como resultado de lo anterior, la visión que se tenía sobre este periodo como el momento en que surge la cultura maya, debe ser replanteado mas bien como una parte integral del periodo Clásico maya.

[209] GENERAL SESSION • **REGIONAL ARCHAEOLOGY OF THE SOUTHERN PLAINS AND ROCKY MOUNTAIN REGION**

[210] SYMPOSIUM • **CURRENT RESEARCH AT COPAN: UNEARTHING, ANALYZING AND CONSERVING THE CULTURAL HERITAGE OF HONDURAS**

Scholars working at Copan continue to augment the rich history of research at this important Maya site with new discoveries and revisions of previously held theories. This session traces

the history of Copan from the Early Preclassic through the Late Classic, exploring issues of landscape transformation, the rise of the Main Group, the importance of ballcourts, Copan's relationship to other Maya communities, and the art and material culture of the site. Scholars will discuss the conservation of Honduras' cultural legacy and effective methods to communicate the site's history to the public.

[211] SYMPOSIUM • **IN THE WAKE OF THE ARCHAEOLOGY OF DEATH: TWENTY-FIVE YEARS AFTER**  
The publication of *The Archaeology of Death* was a milestone in the growth of mortuary studies in the 1970s and 1980s. As an attempt to refocus archaeologists' attention upon the meaning and expression of cultural reaction to death the book highlighted the social and symbolic interrelations between material culture and mortuary behaviors. Its effects were wide-ranging, providing impetus for subsequent generations of scholars to explore mortuary studies creatively. Authors in this session 1) discuss the importance of the volume to mortuary studies and 2) more broadly consider the role of mortuary studies in current archaeological theory and practice.

[212] SYMPOSIUM • **NEW PERSPECTIVES IN ANDEAN HOUSEHOLD ARCHAEOLOGY**  
This collection of papers will focus on a nearly untapped resource for understanding social processes in the Andean past, houses. In this symposium authors will address the archaeological remains of residential areas, emphasizing theoretical perspectives and new methodologies, and incorporate data from domestic contexts into models of social action and cultural processes. Ranging from the effects of depositional processes on the potential interpretations of household data to using the organization of activities in residential space to examine elements of identity, the participants forge new approaches to understanding the social, economic, and political organization of ancient Andean societies through investigating archaeological households.

[213] GENERAL SESSION • **CERAMIC PRODUCTION AND DISTRIBUTION IN THE SOUTHEASTERN US**

[214] FORUM • **THE NEW GRADUATE CURRICULUM: HERITAGE, PUBLIC POLICY AND THE PROFESSIONAL FACE OF ARCHAEOLOGY**

*(Sponsored by SAA Committee on Curriculum)*

Over the past decade many professionals have declared that traditional graduate programs in anthropology are not adequately training the next generation of professionals. The MATRIX project has been an overwhelming success in providing a new direction for undergraduate education. It has become apparent that we also need to reinforce this direction for the graduate curriculum. In this forum, graduate students, new graduates, and established professionals will discuss their experiences and vision for the graduate curriculum in the twenty first century.

[215] SYMPOSIUM • **ZOOARCHAEOLOGICAL CONTRIBUTIONS TO RECONSTRUCTING CULTURAL SYSTEMS**

This session will bring together scholars engaged in innovative zooarchaeological research in the Old World that focuses on developing new ways to examine topics such as seasonality, intensity of animal exploitation, systems of mobility and meat redistribution, inter-regional exchange, ideological systems, occupational specialization, and social ranking. This session provides a valuable representation of the current state of the field in terms of the questions being investigated and the methods used to address them and serves to emphasize the ultimate value of zooarchaeology in the reconstruction of cultural systems in periods ranging from the Paleolithic to the Bronze Age.

[216] SYMPOSIUM • **LONG-TERM CULTURE CHANGE AND CONTINUITIES IN POST-CONQUEST MESOAMERICA**

The Spanish colonization of Mesoamerica had lasting effects on indigenous cultures, yet many preserved continuities. This session contains recent research on cultural continuity and change in the growing field of Mesoamerican historical archaeology. Documents, cultural geography, and archaeology enable the panelists to examine agency, social organization, subsistence, and settlements. Papers treat different regions and periods to elucidate the disparate reactions to culture contact over the long term (ca. 1500-1900 CE). However, we also illustrate similarities in native responses to colonialism across time and space. The focus is on change and continuities in indigenous economies, artifacts, households, and politics.

**[217] ELECTRONIC SYMPOSIUM • HUNTER AND GATHERER LIFEWAYS OF THE EARLY HOLOCENE**

This symposium brings together a series of papers exploring current issues and new data for hunters and gatherers of the early Holocene period. Topics covered include why there is an increase in the diversification of projectile point styles, mobility and settlement patterns, subsistence practice/strategies, organization of lithic technology, sourcing of lithic materials, and geochronology and dating. The papers present research from the Southeast, Southern Plains, Central Plains, Northwestern Plains, and Rocky Mountain regions of North America. This session will further our understanding of the puzzling late Paleoindian period of North America.

**[218] GENERAL SESSION • BIOARCHAEOLOGY AND MORTUARY ANALYSIS IN SOUTH AND CENTRAL AMERICA****[219] SYMPOSIUM • CRAFT PRODUCTION, EXCHANGE, AND PROVENANCE ANALYSIS OF ANDEAN CERAMICS: CURRENT RESEARCH AND FUTURE DIRECTIONS**

Provenance investigations of pottery by chemical and mineralogical techniques have proven to be valuable avenues of research for better understanding broad anthropological topics in Andean prehistory. Papers in this session demonstrate that chemical and/or mineralogical analyses of ceramics are essential, and perhaps underexplored approaches for understanding economic and sociopolitical transformations that occurred in Andean prehistory. Specifically, papers in this session illuminate aspects of social inequality, power, elite and non-elite consumption, statecraft, ethnicity, exchange, production, and technology—all through the lens of provenance investigations.

**[220] SYMPOSIUM • LANDSCAPES OF INTENSIFICATION**

The intensification of agricultural production is one of the most promising directions for landscape archaeology. Human communities transform their surroundings in many ways, but economic undertakings often involve dramatic changes that can retain a high degree of archaeological visibility through time. This session will explore the material manifestations of intensification and the ways archaeologists use them to reconstruct the economic, social, and political forces that produced, and were reproduced, by them. The session will be composed of a geographically and methodologically diverse group of case studies, ranging from Mesoamerican terracing to Mesopotamian manuring.

**[221] SYMPOSIUM • THE MAYA AND THE TOLTECS: REINTERPRETING EARLY POSTCLASSIC INTERACTION**

The nature of interaction between the Maya and Toltecs has been a central question of Mesoamerican archaeology for decades. For many, the Early Postclassic is defined only by Tula and Chichen Itza. Reassessments of the chronologies of both cities imply that interaction must be interpreted within a framework that also includes Xochicalco, Cacaxtla, El Tajin, and La Quemada, other important hubs in the 9th through 11th century international network. This session re-examines the "Early Postclassic" from this broader perspective, with the goal of moving beyond unidirectional models of exchange and towards a more comprehensive understanding of the Mesoamerican network society.

**[222] GENERAL SESSION • HISTORICAL ARCHAEOLOGY OF WAR AND THE MILITARY IN THE US****[223] GENERAL SESSION • BIOARCHAEOLOGY AND MORTUARY ANALYSIS IN THE OLD WORLD****[224] SYMPOSIUM • RECENT RESEARCH AT LA PLAYA, SONORA, MÉXICO**

The results of recent investigations at La Playa, Sonora, Mexico, representing various components of the long-term occupation and utilization of this unique site, ranging from the late Pleistocene to approximately 1960, are presented. New data regarding the Malpais lithic assemblage, the Early Agricultural period paleoethnobotanical and faunal remains, the biface tool assemblage, dental health and biological analyses of the extensive burial population, as well as the late 19th/early 20th century occupations are considered within the context of continuing adaptations in the Sonoran Desert.

**[225] SYMPOSIUM • DATAPALOOZA: STATE AND FEDERAL APPLIED TECHNOLOGY IN SUPPORT OF CULTURAL RESOURCE MANAGEMENT**

There exist a myriad of databases, information systems, and strategies for information management in support of cultural resource management. This symposium will serve to

showcase the latest applied technology at the federal, state, and field level. Beyond the bells and whistles, however, is the need to initiate a dialogue on how the archaeology and historic preservation communities can move forward with a common vision for the future, and how information management can help us get there.

**[226] SYMPOSIUM • THEORETICAL APPROACHES TO THE INTERPRETATION OF FLAKED STONE ASSEMBLAGES**

Analysts frequently approach the explanation of flaked stone assemblages with questions of technology. Where are raw stone resources located and what are the properties of such resources? What kinds of tools were produced? What was the technique used? What are the morphological characteristics that will allow us to define tools and distinguish time periods? While these questions are significant, have broad relevance in archaeological research, and are all inherently grounded in theory, they generally avoid the “why” questions that we seek to answer as anthropologists. Because flaked stone artifacts are an enduring and extensive source of archaeological information, analyses and interpretation of these assemblages contribute extensively to our understanding of past humans. This symposium focuses on the use of explicitly theoretical constructs employed in conjunction with flaked stone analyses to explore the human past.

**[227] SYMPOSIUM • SMUGGLING IN THE ATLANTIC WORLD**

In the last 30 years, historians and archaeologists have done much to document the economy of the Atlantic ‘world system’ between the 16th and 19th centuries. The dominant outlines of this system were in-filled with smaller circuits of trade, many of them technically illegal according to mercantilist law and wartime trade embargoes. However, these circuits have received little scholarly attention. Archaeology may provide the best (or only) evidence for these important undercurrents that shaped colonial societies and fomented political movements. This symposium aims to explore the methodological and theoretical issues raised by the archaeology of smuggling.

**[228] GENERAL SESSION • ARCHAEOLOGY IN THE SOUTHWESTERN US AND ADJACENT REGIONS**

**[229] SYMPOSIUM • THE ARCHAEOLOGY OF COPPER ARTIFACTS IN EASTERN NORTH AMERICA**

Although the indigenous peoples of Eastern North America have one of the longest and most vibrant traditions of metalworking in the world, copper artifacts are surprisingly understudied. In the last decade, an increasing number of scholars working in the pre-Contact and historic eras have placed artifacts crafted from copper at the center of inquiry. This session presents new research that prioritizes metalworking and challenges some entrenched assumptions about copper artifacts that have resulted from an absence of sustained scholarship.

**[230] GENERAL SESSION • ARCHAEOLOGY IN CENTRAL AMERICA: PANAMA, COSTA RICA, NICARAGUA, HONDURAS, AND EL SALVADOR**

**[231] SYMPOSIUM • TRIBES, CHIEFS, AND REGIONAL TRANSFORMATIONS IN PRE-COLUMBIAN PANAMÁ**

This symposium seeks to present recent field and laboratory research results concerning the development and transformation of pre-Columbian cultural traditions in Panamá and the adjoining Chibchan world. Debate continues concerning the level and timing of socio-political organization in different geographic and temporal portions of lower Central and upper South America. Papers in this symposium present new data and interpretations concerning cultural traditions and possible social relations represented at a variety of sites throughout Panamá and adjacent areas, including several sites in Bocas del Toro Province, Central Panamá, and Panamá Viejo.

**[232] GENERAL SESSION • ARCHAEOLOGY IN THE NEAR EAST**

**[233] SYMPOSIUM • THE EMPIRE THINKS BACK: TOWARD A METHODOLOGY OF EMPIRES**

Empires are expansive entities, encompassing diverse local communities. Our attempts to comprehend empires and subsume them under a cohesive archaeological methodology are complicated by the very diversity that defines them. This session poses the question: how does one pursue an archaeology of empire? We draw together scholars working in a wide variety of locales and temporal frameworks in order to identify a range of archaeological methodologies for empire in order to investigate some of the previously overlooked and less

dramatic material indices of empire, traces of its different phases, and micro-scale remains of regional shifts in power.

**[234] SYMPOSIUM • BEYOND THE METROPOLE: AGRESTIC CENTERS IN SOUTHEASTERN MESOAMERICA**

Contra trends in some areas, in SE Mesoamerica archaeologists have carried out wide ranging projects investigating both large centers and the smaller/rural/secondary centers surrounding these metropolitan sites. We suggest these smaller nodes be called agrestic centers, a term that evokes their more rural locations and likely involvement in agriculture without conjuring up negative connotations. Our papers focus on agrestic centers and the complex socio political landscapes in which they rest. Themes include spatial structures of sites and regions, site and region based activities, particularly craft working, and socio political integration among agrestic centers and even smaller settlements.

**[235] SYMPOSIUM • DOMESTIC LIFE IN STATE POLITICAL ECONOMY AT PREHISTORIC CAPITALS: SPECIALIZATION, HIERARCHY AND ETHNICITY**

This symposium will review how specialization, hierarchy and ethnicity are expressed in domestic structures in state capitals of Mesoamerica and the Andean region, and their links to state political economy. Examples of domestic structures in capitals from Central Mexico, the Oaxaca valleys, and the Maya area in Mesoamerica throughout the Classic and Postclassic, as well as from the Bolivian high plateau, the Peruvian southern sierra and northern coast will be reviewed.

**[236] GENERAL SESSION • ARCHAEOLOGY IN CENTRAL AND SOUTHERN MEXICO**

**[237] SYMPOSIUM • PAPAC: THE ARCHAEOLOGY AND CONSERVATION OF ANCIENT URBAN COPAN**

This session addresses preliminary results of the Proyecto Arqueológico de la Planificación de la Antigua Copan (PAPAC). The 2005 season focused on Group 11K-6 in the El Bosque region of the Copan ruins, a poorly understood barrio 400 meters southwest of the Acropolis. Papers explain theoretical and methodological bases of the project, conservation issues, and early results of new mapping and excavations, including the excavation of Tomb 1, a vaulted chamber beneath Structure 11K-28. An important additional paper considers the current state of Honduran archaeology as it relates to the influence of Copan and the historical role of foreign investigators.

**[238] GENERAL SESSION • MAYA ARCHAEOLOGY**

**[239] GENERAL SESSION • ZOOARCHAEOLOGY: A GLOBAL PERSPECTIVE**

**[240] SYMPOSIUM • CASE STUDIES IN COMPARATIVE ARCHAEOLOGY**

Archaeology contributes most significantly to the study of people and society by ranging broadly through time and space. Yet our studies tend to concentrate within limited geographies and periods. Comparisons across cultures often have been cursory, due to lack of rigorous and replicable methods and to our own specializations leaving us insufficiently familiar with the full contexts of the "other" cases to which we try to compare our own data. The purpose of this symposium is to bring together explicitly comparative cases into a single forum, towards a discussion of cross-cultural archaeology as an emerging and critical area of expertise.

**[241] SYMPOSIUM • PERSPECTIVES ON SYMBOLISM FROM THE NORTHEAST AND MIDWEST**

A broad spectrum of papers by archaeologists, anthropologists and First Nation members present archaeological and ethnological aspects of symbolism and First Nation belief systems throughout Northeastern and Midwestern North America. Graphic representations and symbolic expressions on bones, shells, ceramics, stones, trees and wooden poles are explored, as are diverse cultural beliefs about turtles, rattlesnakes and other creatures (both real and mythological). A theme emerging from these papers is that certain shared symbolic beliefs, graphic representations and ceremonial uses of material culture not only have considerable antiquity but cross-cut several linguistic and cultural boundaries.

**[242] GENERAL SESSION • ARCHAEOLOGY IN THE SOUTHEASTERN US**

**[243] SYMPOSIUM • THE MIDDLE WOODLAND IN THE MIDDLE ATLANTIC**

Over the course of the long Middle Woodland period (500 BC-AD 900) the mobile hunting-and-gathering societies of the Early Woodland (1000-500 BC) were transformed into the horticultural chiefdoms of the Late Woodland era (AD 900-1600). Consequently, the Middle Woodland

archaeological record provides critical data for understanding a host of anthropologically important issues. Through the analysis of new data sets and the reevaluation of previously collected information, the papers in this session examine the effects of climatic shifts, competitive cycling, feasting, and subsistence change on social organization during the Middle Woodland in the Middle Atlantic.

[244] SYMPOSIUM • **CURRENT RESEARCH IN BAHAMIAN PREHISTORIC AND HISTORIC ARCHAEOLOGY: PAPERS IN MEMORY OF CHARLES A. HOFFMAN**

Charles A. Hoffman was a pioneer in Bahamian archaeology, having conducted the first scientific, systematic excavation in the Bahamas at the Palmetto Grove site in 1965 and having recovered evidence supporting the 1492 Columbus landfall at the Long Bay site, both on San Salvador island. Current research in the Bahamas and on San Salvador owes a great deal to Charlie Hoffman's early efforts and scientific contributions. The papers in this session run the gamut from prehistoric to historic archaeology and from theoretical approaches to the results of recent fieldwork. This session is dedicated to the memory of Charles A. Hoffman (1929-2005).

[245] SYMPOSIUM • **PLOWZONE AND SURFACE STUDIES: BEYOND THE METHODS**

Archaeological interpretation from plowzone assemblages and surface collections share crucial groundwork laid in the 1970s and 80s that correlated plowed and/or surface distributions to a more whole archaeological record. The papers in this session use plowed or surface assemblages to go past a discussion of methods to the cultural interpretations they allow. The session as a whole provides examples of plowzone and surface studies in action, where they have been successful at eliciting accounts of human behavior in the past.

[246] SYMPOSIUM • **ARCHAEOLOGICAL INVESTIGATIONS AT CHAWAK BUT'O'OB, A LATE CLASSIC MAYA ESCARPMENT COMMUNITY IN NORTHWESTERN BELIZE**

Recent investigations at the site of Chawak But'o'ob on the Rio Bravo Escarpment in the Rio Bravo Conservation and Management Area of Northwestern Belize have revealed an architecturally complex, but humble wetland community characterized by densely distributed commoner housing, extensive hydrological architecture, and dry-slope residential terracing. This symposium considers the site's architecture, landscape modifications, artifacts, and soils as evidence for intensive water-management, suburban ceremonialism, site planning, and flood plain recessionary agriculture. The papers presented here contribute to the growing understanding of ancient settlement complexity and architectural sophistication beyond the formal precincts of Maya urban centers.

[247] GENERAL SESSION • **ETHNOARCHAEOLOGY, ETHNOHISTORY, PLACE, POLITICS AND IDENTITY**

[248] SYMPOSIUM • **FROM COAST TO COAST: CURRENT RESEARCH IN SOUTH FLORIDA ARCHAEOLOGY**

Circles, coastlines, tree islands, swamps, and sloughs are among the many locations that prehistoric peoples created, developed, and inhabited in south Florida over the centuries. New research is suggesting that people moved in and out of areas as climate and habitats changed and lived in more complex settlements than previously believed. This symposium will look at the predrainage aboriginal use of south Florida and how humans used and impacted the various, unique environments. Topics include the range of cultures, habitat selection, social interaction, and natural resources of this wetland environment.

[249] SYMPOSIUM • **THE ARCHAEOLOGY OF THE INDIAN RIVER HINTERLAND**

As a result of the Jacksonville U. S. Army Corps of Engineer's involvement in the Everglades restoration project, CRM surveys, test excavations, and a data recovery excavation have yielded new information on chronology, soils, ceramics, lithics, settlement patterns, human remains, and faunal and floral remains from the hitherto unexplored interior region of St. Lucie and Brevard Counties, east-central Florida. Due to extensive public involvement in the project, the Secretary of the Interior's Report to Congress on Federal Archeological Activities for Fiscal Year 2003 cites this as one of the Corps of Engineer's Agency Archaeology Program Highlights.

[250] GENERAL SESSION • **HISTORICAL ARCHAEOLOGY**

[251] SYMPOSIUM • **HISTORIC CEMETERY STUDIES: A VIEW FROM KENTUCKY AND THE OHIO VALLEY**

Since the mid 1990s a variety of historic cemetery projects have been undertaken in Kentucky. These studies range from geophysical studies aimed at defining cemetery structure, to the



excavation of small family cemeteries, to the investigation of large community cemeteries. Through the integration of the biometrics of health and growth, isotopic data, genetic analysis, and material culture this research is providing new insights into mid- to late nineteenth century mortuary patterns, and differences in social standing and lifestyles.

[252] GENERAL SESSION • **ARCHAEOLOGY IN NORTHERN EUROPE**

### ABSTRACTS OF INDIVIDUAL PRESENTATIONS

**Abbott, David [118]** see **Wichlacz, Caitlin**; [57] see **Lack, Andrew**

**Abbott, Lawrence (North Carolina Office of State Archaeology) [73]** *Discussant*

**Abbott, Mark [204]** see *Cooke, Colin*

**Abraham, Sarah (University of California, Santa Barbara) and Conlee, Christina (Texas State University)**

[51] *Local Histories and Large-Scale Patterns on the South Coast of Peru*

During the Late Intermediate Period several independent polities developed with a shared cultural tradition along the southern coast of Peru. Large-scale patterns during this time stemmed from the expansion and collapse of Middle Horizon states as well as local histories. The combination of external and internal influences resulted in new interactions, migrations, and exchange systems that connected people in different ways than previously. Evidence from the Nasca region and the adjacent highlands of Lucanas is considered, in addition to comparative information from other groups, to evaluate how local trajectories coincided with macro-regional patterns to create a new sociopolitical landscape.

**Abraham, Shinu (St. Lawrence University)**

[63] *Space and Place in Early Historic South India: Using GIS to Model Regional Dynamics along India's Southwestern Coast*

The development of a spatial database for the central Malabar Coast in Kerala, India, is making possible new interpretations about the impact of external trade links on emerging complexity in southwestern India. This paper presents the potential of using GIS to synthesize hitherto dispersed data sources – ranging from existing and new survey data, historical and topographical maps, and satellite imagery – to re-assess the impact of inter-regional Indian Ocean trade networks on local settlement patterns and exchange systems.

**Abrahams, Peter [185]** see *Entwistle, Jane A.*

**Ackley, Laura [148]** see *Richards, Heather*

**Acton, James (Independent Scholar) and Kardulias, P. Nick (College of Wooster)**

[43] *Residential Stability and Mobility in Prehistoric Central Ohio: The Millwood Rockshelter (33KN395) in Knox County*

Excavation of the Millwood Rockshelter in the Kokosing River drainage of Knox County in central Ohio has revealed a large assemblage of lithics and Late Woodland grit-tempered cord-marked potsherds. Petrographic analysis of the potsherds revealed that the temper is igneous in origin, yet no igneous source lies anywhere nearby. The lithics reveal long-term, sporadic occupation, from the Early Archaic to the Late Prehistoric. These discoveries raise fundamental questions concerning the degree of residential mobility. We are beginning to discern a settlement pattern in which Woodland peoples moved regularly among a variety of valley sites, despite the advent of horticulture.

**Adams, E. Charles (University of Arizona)**

[93] *Time and Space: From Chevelon to Homol'ovi*

In the 20 years of research in the Homol'ovi Settlement Cluster in northeastern Arizona, much has been learned about the space/time relationships among the villages that has contributed to important insights into the people who occupied these villages. This paper explains the spatial and temporal context of the seven Homol'ovi Cluster villages as a backdrop to understanding the dynamic sociopolitical relations among the village occupants

as they evolved through the nearly 150-year occupation of the cluster. Special attention is given to Chevelon, the most recently excavated and best understood village in terms of its chronology and spatial relationships.

**Adams, Jeffery [162]** *see Glantz, Michelle*

**Adams, Karen R. (Crow Canyon Archaeological Center), Meegan, Cathryn M. (Arizona State University), Ortman, Scott (Crow Canyon Archaeological Center), Howell, R. Emerson (University of Arizona) and Werth, Lindsay (Iowa State University)**

[107] *MAIS Southwest: Identifying and Describing Landraces of Indigenous Maize of the Southwestern United States*

For over three millennia, maize (*Zea mays* L.) has been an important crop in the Southwestern United States. Historic indigenous maize grown in Mexico and many other New World countries has been well reported, but not in the United States. To fill this information gap, 123 maize accessions grown from USDA seed collected in the 20th century from Native Americans across the southwestern United States have been described (growth and ear traits) and grouped into landraces. Grain yield and temperature requirements for maturation will inform archaeological models, and morphological traits of greatest use for distinguishing landraces will benefit archaeobotanists.

**Adams, Karen R. [27]** *see Roney, John; [93]* *see Howell, R. Emerson*

**Adams, Keith W. (Thomas Jefferson's Poplar Forest)**

[31] *Memory of a Mutable Landscape: Roads and Archaeology at Poplar Forest*

Over 200 years, private roads and paths evolved in response to the needs of Thomas Jefferson's slave-holding plantation Poplar Forest. Tenant farming and use as a summer retreat created further changes to this network. Three of these roads are placed within a problematized landscape of documents, oral histories, archaeology and public interpretation. Tensions between document, oral history, research and interpretation inform the archaeology of contingent and mutable landscapes. Archaeology and public interpretation is often played out within this space between realized place as artifact and the transformative power of memory.

**Adelsberger, Katherine A. (Washington University) and Kidder, Tristram R. (Washington University)**

[242] *Landscape Change and Human Settlement in the Upper Tensas Basin, Northeastern Louisiana*

Landscape evolution may determine the way humans utilize their environment, from influencing settlement patterns to constraining cultural change. This is particularly true in rapidly-changing alluvial environments. The Tensas Basin of the Lower Mississippi Valley contains a number of archaeological sites, important due to their antiquity as well as their size and complexity. A sequence of river avulsions, meander shifts, and crevasse splay events after 5500 cal. BP have been documented using core sediment analyses, soil maps and digital elevation models. The resulting environmental destabilization and settlement discontinuity are implicated in significant cultural changes at the end of the Archaic period.

**Adkins, Larry (Cerritos College)**

[167] *Sun and Constellation Calendars in the Late Preceramic Period of Perú*

Besides declination, change in magnetic north since a map was made, two factors are considered when analyzing astronomical alignments: (1) azimuth angle of sunrise/sunset during the period under study; (2) position of the sun with respect to constellations at that time. The solstice sunrise/sunset azimuth is determined by observer's latitude and obliquity of the ecliptic, which oscillates with time, thus changing the solstice azimuth. The position of the sun with respect to the constellations at the solstice varies over time with the precession of the earth's axis. Our evaluations of Late Preceramic site alignments are based on these criteria.

**Adler, Michael (Southern Methodist University)**

[6] *Who is the Past? Present and Future Directions in the Archaeology of Cultural Affiliation Research*

The concept of cultural affiliation remains central to issues of repatriation, land and resource claims, indigenous intellectual property and other negotiations involving past and present control of culturally significant objects and resources. This paper explores the points of contention and confluence in present understandings of cultural affiliation. It specifically

addresses recent research collaboration between cultural resource advisors from four Pueblo communities (Acoma, Laguna, Hopi and Zuni) and archaeologists, historians and ethnologists in the U.S. Southwest. The collaboration highlights the need for continued, in-depth dialogue in all matters involving multidisciplinary investigations of cultural affiliation.

**Adler, Michael [103]** *see Wolff, Christopher*

**Adolfo, Gil (Conicet-Museo de Historia Natural de San Rafael), Neme, Gustavo (Conicet-Museo de Historia Natural de San Rafael), Tykot, Robert (University of South Florida) and Shelnut, Nicole (University of South Florida)**

[152] *Regional Stable Isotopic Value Variability in West-Central/North Patagonia (Argentina)*  
The central-western region of Argentina is thought to be the southern boundary of prehispanic maize agriculture while its neighbor region of North Patagonia is assumed to be populated by hunter-gatherers that never ate maize. In order to explore this variability, we present stable carbon and nitrogen isotope data from San Juan, Mendoza and Neuquén (Argentina). The isotopic information includes late Holocene human bone collagen and apatite and tooth enamel samples, and animal and plant food resources, from several environmental zones. With this information we discuss the role of maize and its temporal and spatial variability in this broad region.

**Adovasio, J. M. (Mercyhurst College)**

[83] *Paleoindians, Perishable Artifacts, and Dying Paradigms Redux*  
Despite two decades of research suggesting that the "man in furs with stone-tipped spear versus mammoth" scenario is largely an andro-lithocentric fiction, this myth still persists. Indeed, there have even been recent efforts to revivify it. This paper addresses the deep antiquity, diversity, and ubiquity of non-durable artifacts in the Paleoindian technological inventory and behavioral repertoire in North and South America as well as the implications of these data for new models of Paleoindian lifeways. Not surprisingly, when viewed through a "perishable prism," the roles of females, the old and the young of both sexes, are brought into sharp relief.

[242] *see Rexroth, Allison*; [138] *see Wernecke, D. Clark*

**Adriano-Morán, Cristina [158]** *see Martínez-Yrizar, Diana*

**Advincula, Mario [207]** *see Haas, Jonathan*

**Aftandilian, Dave (University of Chicago)**

[47] *Interpreting Animal Effigies from Precontact Native American Sites: A New, Interdisciplinary Method Applied to Illinois Mississippian Artifacts*  
Animals are frequently depicted on artifacts recovered from precontact Native American sites throughout the Americas. However, it is often difficult to determine what these animal effigies meant to the peoples who made them. In this paper, I will present a new, interdisciplinary method for interpreting these effigies that I have developed as part of my dissertation research. The method consists of four interrelated steps: formal analysis, contextual analysis, ethnographic analogy, and finally interpretation. I will demonstrate how the method works by using it to interpret various types of animal effigy objects made by Illinois Mississippians.

**Agbe-Davies, Anna (DePaul University) [11]** *Discussant*

**Aguilera, Miguel Astor (Arizona State University)**

[117] *Mesoamerican Communicating Objects: Their Function and Influence on Maya Worldview Before, During, and After Spanish Contact*

This paper analyzes archaeological, ethnohistorical, and ethnographic data to analyze Mesoamerican communicating icons and their function in ancestor veneration practice. Different Mesoamerican social groups incorporated various cultural aspects of their trading partners, alliances, and even enemies, with a resulting hybrid of similarities that define what we today call Mesoamerican culture. Religion is of course part of this worldview and what becomes apparent is that the Maya had a hybrid culture centuries before the arrival of the Spanish. Contact period Iberian Catholicism was no different being syncretically composed of Christian, Visigothic, Muslim, Roman, and other worldviews that continue to this day.

**Ahler, Stanley (PaleoCultural Research Group), Picha, Paul (State Historical Society of North Dakota), Falk, Carl (PaleoCultural Research Group) and Swenson, Fern (State Historical Society of North Dakota)**

[78] *At the Plains Village Threshold: Settlement Organization and Architecture at Menoken Village NHL, North Dakota*

Menoken, a terminal Late Woodland settlement (~AD 1200) in central North Dakota, once contained 30+ houses surrounded by a bastioned palisade and ditch. Two distinct, earth-covered, oval house types occur: (1) semisubterranean with an interior entry ramp, and (2) at the surface with many wall posts. Entrances face northeast, southwest, and southeast. Single excavated examples of surface and pit houses do not differ in season of use or overall function. The fortified settlement plan is akin to that in contemporaneous Initial Middle Missouri villages, while elements of both house types occur in the highly standardized IMM and EMM house forms.

**Ahlfeldt, Jennifer (University of New Mexico)**

[210] *The Aesthetics of Animism in Eighth-Century Maya Temple Design*

The project to conserve, analyze, and re-present the facades of Temple 22 is a cumulative one, spanning the efforts of scholars over several centuries. This paper places Temple 22 within the history of Maya architectural design by offering new insight into its eighth-century appearance. Employing performance theory and phenomenology, this paper proposes that Temple 22's architects designed it to serve a particular discourse of dynastic power by engaging the experiential aesthetics of Maya religion. Temple 22 was successful in that the ancient Maya sought both to quote and conserve it; continued conservation efforts are necessary still today.

[148] *see Richards, Heather*

**Ahlman, Todd [5] *see Camp, Jennifer***

**Ahlman, Todd M. (University of Montana) and Schroedl, Gerald F. (University of Tennessee)**

[52] *Ceramic Production and Exchange among Enslaved Africans on St. Kitts, West Indies*  
Archaeological investigations at the Brimstone Hill Fortress National Park on St. Kitts have recovered 665 Afro-Caribbean ware sherds dating 1790-1850. This pottery was most likely made on St. Kitts by enslaved Africans. Recent analysis of the sherds and clay sourcing studies are aimed at understanding the context of ceramic production and trade by enslaved Africans. Analysis shows that many sherds resemble pottery from nearby islands, but have characteristics making them distinctly Kittian. This indicates that enslaved Africans engaged in patterns of production and trade with nearby islands that has not been previously recognized.

**Aimers, James [189] *see Fry, Robert***

**Aimers, Jim (University College London)**

[182] *The Interregional Maya Pottery Project: Progress and Prospects*

In 2001 I established the Interregional Maya Pottery Project (IMPP) to facilitate comparison of ceramics from different zones of the Maya area and beyond. I'll report on the goals of the IMPP, challenges the project faces, and prospects for the future. I will demonstrate the server-based online Geographical Information System (GIS) I am using to present the data and the powerful potential of this technology, especially for the dissemination of images and dynamic maps to anyone with a web browser. Finally, I'll demonstrate how online GIS allows archaeologists anywhere to seek patterns using my basic ceramic data.

**Al, Et [76] *see Hublin, Jean-Jacques***

**Al-Ali, Audrey (University of New Mexico)**

[157] *Power and Space at Ancient Chocó: Preliminary Reflections on the Emergence of Social Stratification at an Early Maya City*

The early developmental frame for Chocó within the context of Maya civilization and the site's great size as well as its assortment of seemingly well-organized residential, administrative, and workshop areas offers optimal possibilities for analyzing use of space as it relates to emergent social complexity. A diachronic approach incorporates identification of functional arrangements at distinct periods and then comparing them through time to provide a basis for analyzing seminal developments in the long-neglected Southern Maya Zone.

**Aland, Amanda [103] *see Wolff, Christopher***

**Albino, Adriana M. [239]** *see Kligmann, Debora M.*

**Alconini, Sonia (University of Texas at San Antonio) and Paz, Jose Luis (Universidad Mayor de San Andres)**

[4] *Inka and Tiwanaku Dynamics in Charazani: A Penetration Corridor to the Amazon*

This presentation will focus on Charazani, located in the northeastern valleys of the Circum-Titicaca as an important corridor to the Amazon. This research, part of a broader project studying the effects of the eastern Inka frontier on the local dynamics, was based on a regional scale survey. This panel will present the initial results to understand the settlement shifts before and after the Inkas, patterns of agricultural intensification vis-à-vis ecological and political factors, and the Inka effects in the settlement hierarchy and population resettlement. In addition, it will explore the presence of Tiwanaku during the Middle Horizon.

**Aldana, Gerardo (UCSB)**

[117] *Classic Maya Creation and the Nature of Deity: Re-considering Indigenous Epistemologies*

Investigations into Classic Maya science reveal a cosmology that does not seem to be built on mechanical causality. Moreover, Classic Maya elite ritual points to an oracular basis of religion. In this paper, I explore the logical ramifications of interpreting Maya Creation through a model of rationality that takes oracles and non-mechanical causality into account. To assist in filling the void, I turn to indigenous notions of "power" for a translation of the term k'uh. This suggests a re-interpretation of the relationships amongst Classic Maya peoples and between people and their "natural" world.

**Aldenderfer, Mark (University of Arizona)**

[53] *The State of Knowledge of the Highland South-Central Andean Archaic*

Archaeologists—Peruvian, Chilean, Argentine, Bolivian, and international—have been studying the Archaic Period in the highlands of the south-central Andes for more than 60 years. This paper reviews the state of our knowledge on the Archaic with particular focus on chronologies, models of process, and the major gaps in our knowledge. In so doing, directions for future research will be outlined.

[11] *Discussant*; [185] *see Craig, Nathan*; [4] *see Speakman, Robert J.*

**Alexander, Rani (New Mexico State University)**

[216] *Archaeology and the Cehache in Southwestern Campeche, Mexico*

The sixteenth-century inhabitants of southwestern Campeche were the Cehache Maya, characterized in documentary sources as a forgotten tribe who possessed low levels of political centralization and hierarchical organization, and whose members inhabited a sparsely populated and war-like frontier beyond the pale of civilization. In this paper I examine the archaeological, historical, and ethnoarchaeological evidence of political-economic change from AD 900 to the present and consider the correspondence and disjunctions between the archaeological and historical records. I contend that the Cehache region possessed a structured and coherent internal organization which profoundly affected centralized polities in adjacent regions.

**Alfonso, Marta (SUNY, Binghamton), Giles, Bretton (SUNY, Binghamton) and Bauder, Jennifer (SUNY, Binghamton)**

[141] *Revisiting Burial Group F at Helena Crossing*

In this study, the trauma, pathology and post-mortem processing present in Burial Group F at Helena Crossing are examined. The Helena Crossing site excavated by James Ford continues to be important in understanding the Middle Woodland in the Mississippi Valley. However, interpreting the mortuary ritual and health of Middle Woodland populations in the Central Mississippi Valley has been limited by the rather cursory analysis of this skeletal material. Although Burial Group F does not have elaborate burial goods, like others at Helena Crossing, the extensive evidence of trauma, pathology and post-mortem processing makes these four burials uniquely interesting.

**Algaze, Guillermo (UCSD) [221]** *Discussant*

**Allard, Francis (Indiana University of Pennsylvania)**

[239] *The Treatment of Horses in Bronze Age Mongolia: Ritual and Continuity*

Established in 2001 the 'Khanuy Valley Collaborative Project on Early Nomadic Pastoralism in

Mongolia' has excavated a number of Bronze Age (ca. 1500-500 BC) stone built ritual sites whose structural components include small mounds that covered the remains of horses. Of significance are patterns in the placement of the mounds within the sites, the body parts selected, the age and sex of the interred horses, as well as the orientation of the skulls. An ethnographic study of the treatment and consumption of horses by the area's herders has revealed intriguing parallels between Bronze Age and modern practices.

[71] see Short, Laura

**Allegretto, Kimberly (Brandeis University), Schmidt, Christopher (University of Indianapolis) and van der Merwe, Nikolaas (University of Cape Town)**

[132] *A Comparison of Stable Isotope and Dental Evidence for Maize Consumption at Albee Phase Sites in Indiana*

The adoption of maize as a staple crop represented an important technological and social change in Eastern Woodland societies in North America. Several lines of evidence have documented a rapid increase in the consumption of maize in the Late Woodland period. Multiple approaches, however, have rarely been applied to the same collection. Human remains from Albee phase (c. A.D. 800-1300) sites in Indiana provide the opportunity to compare results from two independent methods of documenting maize consumption. In this paper, the results of stable carbon isotope analysis will be compared to previously measured indicators of maize consumption from dental pathology.

**Allen, Eowyn (Arizona State University), Sarjoughian, Hessam (Arizona State University) and Barton, Michael (Arizona State University)**

[80] *Modeling of Agropastoral Human Activities Using Agent-Based Simulation*

The multidisciplinary Mediterranean Landscape Dynamics Project studies effects of agropastoral activities on landscapes and societies from the Neolithic through the Bronze Age in the Mediterranean Basin. In this project, an agent model captures human social structure at the village and household levels. By encapsulating landscape data within a surface process model and creating an interface to the human agents, both models can perform independently and still react to the actions of the other, potentially offering new insights into patterns and long-term consequences of human land use.

**Allsworth-Jones, Philip [126] see Loubser, Johannes**

**Almeida, Francisco [76] see Thacker, Paul**

**al-Shiyab, Abdel Halim [82] see Perry, Megan**

**Altaha, Mark (Heritage Program, White Mountain Apache Tribe), Laluk, Nicholas (University of Arizona) and Roos, Christopher I. (University of Arizona)**

[2] *Apache Cultural Values and Research for Landscape Preservation*

Although "scientific" values of heritage resources are often prioritized in preservation, cultural heritage resources have many values for different stakeholders. For White Mountain Apache people, the protection of archaeological and sacred sites is paramount, in part due to their place in cultural landscapes. However, knowledge of landscape histories—obtained through research—can contribute to the preservation of the heritage landscapes as a whole. Through creative research design, respect for and recognition of Apache cultural values, we have conducted collaborative research that will contribute to the preservation, maintenance, and overall well-being of the landscapes in which heritage resources are situated.

**Altaha, Mark [171] see Colwell-Chanthaphonh, Chip; [2] see Roos, Christopher I.**

**Altschul, Jeffrey (Statistical Research, Inc./SRI Foundation) [191] Discussant**

**Alvarado, Sylvia [238] see Demarest, Arthur**

**Alvarado Zayas, Pedro (Instituto de Cultural Puertorriqueno)**

[126] *Estudios Sobre el Arte Rupestre de la Cueva Lucero, Puerto Rico (Studies on the Rock Art of Cueva Lucero, Puerto Rico)*

Esta ponencia trata sobre descripciones e interpretaciones preliminares de los petroglifos y pictografías de la Cueva Lucero en el municipio de Juana Díaz, Puerto Rico. Usando varios métodos, podemos establecer distintas categorizaciones de estilo y formas de ejecución. Las imágenes dejan a nosotros un sentido ó alusión a toda una gama de experiencias, tal vez

extrasensoriales, donde se combina el mundo físico, las experiencias chamanísticas y las ceremonias mágico-religiosas dedicadas a las almas de los muertos y deidades tutelares. This paper focuses on the descriptions and preliminary interpretations of the petroglyphs and pictographs of Cueva Lucero in the municipio of Juana Díaz, Puerto Rico. Using various methods, it is possible to establish distinct categories of style and execution methods. The images give one a sense or the illusion of a wide range of experiences, perhaps extra sensual, that combine the physical world, shamanistic experiences, and magic-religious ceremonies dedicated to the souls of the dead and titular deities.

**Alvarez Palma, Ana María (ENAH, Mexico)**

[173] *Definición de los Conjuntos Cerámicos Posclásicos del Señorío de Metztitlán*  
Durante el Posclásico en la región de Metztitlán se produce un complejo cerámico con rasgos tecnológicos y patrones decorativos peculiares, algunos compartidos parcialmente con los de otras regiones y otros distintivos y específicos. Como parte de los resultados del proyecto Metztitlán, queremos ofrecer una propuesta de caracterización tecnopológica de sus variantes y discutir algunas de las relaciones con otros "estilos" regionales, así como sus implicaciones cronológicas y étnicas y su inserción en las amplias esferas de intercambio del Altiplano Central y de la Costa del Golfo de México.

**Alvarez Palma, Ana María (Instituto Nacional De Antropología E Historia) [224] Discussant**

**Alvitre, Cindi (UCLA World Arts & Cultures), Teeter, Wendy (UCLA Fowler Museum of Cultural History) and Sarobei Rivera, Esq., DeAnna M. (UCLA Tribal Learning Community & Educational Exchange)**

[123] *Trouble in Paradise: Gaining Recognition for the Unrecognized in Puerto Rico and Los Angeles*

There are similarities and differences in cultural resource management issues between the Taino and Tongva. Both unfederally recognized tribes operate within two different political environments, yet face similar challenges regarding protection of cultural heritage. This paper will examine different case studies to reconsider strategies and offer potential alternative approaches in finding resolution to these delicate and complex situations.

**Ambrose, Stanley H. (University of Illinois -Urbana)**

[32] *Behavioral Complexity in Projectile Technology during the MSA/LSA Transition in East Africa*

The end of the Middle Stone Age is marked by higher frequencies of bone tools, ornaments, pigments and other symbolic artifacts and exotic lithic raw materials, and decreased stone tool size. Transitional lithic assemblages often contain both backed microlithic blades and small unifacial and bifacial points. Small points may have been lighter, thinner projectile tips, possibly for arrows. Backed microliths, if hafted obliquely back-to-back in pairs, are better arrow points; they provide sharper edges and lack the thick cross-section and butt of faceted platform flakes. Behaviorally complex individuals may have manufactured both types of artifacts in different circumstances.

[132] see Betts, Colin; [243] see Stevenson, Christopher

**Ameri, Marta (New York University)**

[63] *Finding Faith: Reconciling Archaeological and Textual Evidence for Significant Religious Events*

This paper explores the archaeologist's role in differentiating textual and archaeological evidence for invasions, specifically ones that have strong religious significance. Recent analysis of Post-Harappan material from Rajasthan, India, has implications for the identification of the Aryan invasions, an episode well attested in the Vedic literature, but still lacking archaeological proof. These finds raise issues similar to those faced by Syro-Palestinian archaeologists attempting to document the Israelite destruction of the Canaanite city-states, namely, how do we reconcile the physical evidence provided by archaeology with textual "evidence" that is held sacred by the majority of the population?

**Ammerman, Albert (Colgate University) [19] Discussant; [245] Discussant**

**Amundsen, Butch [72] see Freeman, Andrea**

**Anaya H., Armando [177] see Folan, William J.**

**Andersen, Catharyn [92]** *see* *Arendt, Beatrix*

**Anderson, David (University of Tennessee), Gillam, Chris (University of South Carolina), Miller, Shane (University of Tennessee), Yerka, Stephen (University of Tennessee) and Faught, Michael (Panamerican Consultants, Inc.)**

[66] *Paleoindian Database of the Americas (PIDBA): Data and Distributions*

Paleoindian site and artifact data, including locational data on the occurrence of more than 20,000 projectile points, are used to plot the distribution of a number of classic forms across North America. The PIDBA (Paleoindian Database of the Americas) dataset, an ongoing cooperative effort, is posted online, and includes measurement data for several thousand Paleoindian artifacts, mostly projectile points, blades, and other tool types. The data are amenable to analyses with other datasets, including climate, paleogeographic and paleovegetational information. Examples of this research encompass what might be considered very large hemispherical or global scale predictive modeling.

**Anderson, David (University of Tennessee) [26]** *Discussant*

**Anderson, Derek T. (University of Wyoming), Prasciunas, Mary M. (University of Wyoming), Haynes, C. Vance (University of Arizona), Kornfeld, Marcel (University of Wyoming) and Frison, George C. (University of Wyoming)**

[72] *Continuing Investigations at the Sheaman Clovis Site, Eastern Wyoming*

The Sheaman locality of the Agate Basin site in eastern Wyoming has been a subject of investigation since the late 1970s. In 2004, the University of Wyoming tested several additional areas of the site. Implementation of fine-grained excavation and screening methods resulted in the recovery of over 1,000 pieces of microdebitage and bone, as well as chipped stone tools and an antler rod. Continuing artifact analysis, additional radiocarbon dates, and stratigraphic studies have helped clarify site chronology and function.

**Anderson, Emily (Yale University)**

[15] *Recognizing the Broader Dimensions of Religious/Ritual Artifacts*

Some artifacts refer to religious arenas through use of consciously constructed symbol-systems recognized by a past social group. Simultaneously, such artifacts represent the conditions of the lived "reality" of the group, concerning issues of environment, access, contact, etc. By recognizing that a religious artifact thus reflects the perceived relation of symbolic and empirical spheres, the archaeologist can garner information concerning both the dynamic relationship of different component elements of the group's environment, and knowledge of how specifically religious phenomena were positioned throughout these broader sociocultural parameters. I will use my research concerning Minoan glyptic to illustrate these ideas.

**Anderson, J. Heath (Penn State University)**

[3] *Classic and Postclassic Settlement and Population in Tepeaca, Puebla, Mexico*

In the mid-1990s, Penn State archaeologists carried out a full-coverage surface survey within a 560 km<sup>2</sup> area surrounding Tepeaca, Puebla, Mexico. Tepeaca was an Aztec administrative center that contained an important marketplace. This poster uses data from these investigations to map the distribution of surface collections containing ceramic markers for the Classic and Postclassic periods and to offer inferences about settlement and population during these periods. These inferences should provide insight into how important regional political developments during these periods affected local populations.

**Anderson, Karen (University of California, Santa Barbara)**

[212] *Tiwanaku Impact on the Cochabamba Region: The Household Evidence from Piñami*

There is still debate on the relationship between the state of Tiwanaku and the Cochabamba region of Bolivia, but until recently, little evidence besides ceramics. In this paper, I present household data from horizontal excavations at Piñami, a habitation mound in Cochabamba, which evidences Tiwanaku influence on local development. I focus on household layout, construction techniques, special features and household artifacts, and compare these data with Cochabamba households before Tiwanaku influence as well as with Tiwanaku households in the core. This comparative approach produces a more in depth and nuanced interpretation of the impact of the Tiwanaku state on Cochabamba.

**Anderson, Karen [69]** *see* *Echevarria, Gori Tumi*



**Anderson, Lisa (New York State Museum), Newell Dale, Vanessa (New York State Museum) and Ross Klinge, Erin (Hartgen Archaeological Associates, Inc.)**

[5] *The Schuyler Flatts Burial Ground: An 18th Century African-American Cemetery near Albany, New York*

The Schuyler Flatts Burial Ground was discovered in May 2005 during construction in the town of Colonie, New York. Previously unrecorded, the site was determined to be an eighteenth century African-American cemetery that was located on the grounds of a farm once owned by the Schuylers, a prominent colonial Albany family. Bioarchaeological analysis of twelve individuals, including seven adults and five children, will provide an opportunity to examine eighteenth century rural African-American life within the context of the developing social and economic landscape of a northern capital city.

**Anderson, Lloyd B. (Ecological Linguistics)**

[196] *Rock Art Interpretation -- Making Our Reasoning Explicit for Examples Which Are Most Like Texts*

Rock-art interpretation is controversial. Yet motifs sometimes occur in combinations favoring particular readings. Examples include hunting scenes, multiply repeated motifs, and perhaps tickmark records indicating when rains came. Readings also depend on ethnographic analogies, objects depicted in rock art, and locations of rock art, all external to texts themselves. Other tools include distributions across time and space, and evidence for variation, equivalences and distinctions, in the most favorable cases linking rock art styles with present-day peoples or with peoples recognizable archaeologically. By making our reasoning explicit, we can place interpretation on a firmer footing. This promotes public support for preservation.

**Anderson, Meredith (University of Iowa)**

[182] *Trade Ware Distribution in Rural Teotihuacán Sites: Regional and Temporal Distribution of Thin Orange in Mexico's Northeastern Basin*

Based on prior studies of imported Thin Orange Ware (TO) in and near Teotihuacán, this paper presents the area and temporal distribution of TO in four Teotihuacán period rural sites in the eastern Teotihuacán Valley. The distribution of TO corresponds directly with (1) the proposed trade routes linking the eastern basin with southern Puebla where TO originated and (2) with site location and occupational history.

**Anderson, Pia (American University of Sharjah)**

[101] *Landscape Archaeology in the Emirate of Sharjah, United Arab Emirates*

The landscape of the Emirate of Sharjah, within the United Arab Emirates, is undergoing a progression of dramatic changes at an almost unparalleled pace. While these current transformations are profound, they are but the latest in a continuum of at least 7000 years of habitation and settlement. This paper reports on the results of a landscape survey being carried out by the American University of Sharjah. It documents recent finds and sets them within the context of the long term history of the region.

**Andrade, Sandra (New Mexico State University)**

[247] *The Effects of 20th Century Globalization on the Built Environment of Silvituc*

To better understand the effects of globalization on the built environment, this paper investigates how the growing global economy of the 20th century has affected the architecture in the Maya community of Silvituc, Campeche, Mexico. Specifically, it addresses the question of whether alterations in structure design and composition correlate to changes in household production and age of structure. This will contribute to the study of how changes in household occupation, possibly the result of world systems pressures, may be reflected in the archeological record both past and present.

**Andrefsky, Jr, William (Washington State University)**

[133] *Projectile Point Provisioning Strategies and Human Land Use*

The classification of projectile points in North America often emphasizes the shape and size of the haft element and not the blade element. Emphasis on the haft element in classification is an advisable strategy since the blade element morphology and size tends to change during the use life of the specimen. This is exactly why the characteristics of projectile point blade elements such as retouch amount, size and shape are useful for inferring characteristics of technological organization. Variability in retouch amount and location on projectile point blade elements is shown to be directly associated with prehistoric hunter-gatherer land use patterns.

[133] see Wilson, Jennifer; [133] see Harper, Cheryl; [133] see Quinn, Colin Patrick; [133] see Terry, Karisa

**Andres, Christopher R. (Indiana Department of Natural Resources Division of Historic Preservation and Archaeology) and Graham, Elizabeth (University College London)**

[189] *Architecture and Sociopolitical Change at Lamanai and Chau Hiix, Belize*

Research at most Maya sites suggests cessation of activities in elite residential/administrative zones at around AD 800. Recent investigations at Lamanai and Chau Hiix indicate the communities' site center "palace" complexes were the focus of large-scale construction activity during the Classic to Postclassic transition. In this paper, we compare the late architectural histories of Lamanai's "Ottawa" complex and Group B at Chau Hiix, and we also consider the significance of the introduction of perishable construction materials, novel architectural configurations, and altered access patterns relative to sociopolitical developments in northern Belize between AD 800 and 1000.

**Andrews, Anthony (New College of Florida), Robles, Fernando (I.N.A.H. -- Yucatan) and Lawton, Crorey (Tulane University)**

[177] *Tzeme: A Classic Maya City-State of Northwestern Yucatan*

In the course of a survey of the northwest corner of Yucatan, detailed reconnaissance, mapping, and test excavations were conducted at the site of Tzeme, yielding a long sequence of occupation from Middle Preclassic through Late Colonial times, with a peak occupation in the Late and Terminal Classic periods. The city covers an area of at least 4 km<sup>2</sup>, and includes several plaza groups with monumental architecture, sculpture, and stelae with hieroglyphic inscriptions. We describe the city and discuss its probable role as the capital of a small kingdom before its collapse at the end of the Terminal Classic period.

**Andrews, E. Wyllys (Tulane University)** [177] *Discussant*; [221] *Discussant*

**Andrus, Fred** [8] *see Thompson, Victor*

**Andrusko, Valerie (University of California, Santa Barbara), Torres, Elva (Instituto Nacional de Cultura- Cusco) and Bellefemine, Viviana (Archeo-Tec Inc, Oakland CA)**

[10] *The Tombs of Sacsayhuaman: A Bioarchaeological Analysis of Elite Burials from the Capital of the Inca Empire*

The recovery of burials from the Cuzco site of Sacsayhuaman provides the opportunity to understand the life histories and mortuary treatment of elite individuals in the Inca Empire. The analysis of 42 burials has revealed distinct patterns in burial treatment, demography, paleopathology, and cranial vault modification. A comparison between Sacsayhuaman and Chokepukio, a site located 35 km outside the city of Cuzco, shows significant variation in burial practices and frequencies of specific diseases. This analysis elucidates the differences between the elite sector living in Cuzco and the individuals under their control, suggesting that social stratification had direct impacts on health.

**Angel, Mona** [148] *see Plaza, David*

**Anovitz, Lawrence** [44] *see Fayek, Mostafa*

**Anselmi, Lisa Marie (Buffalo State College)**

[172] *Investigating Copper-Based Metals Using Archaeometric Techniques: A Brief Review of the Use of Instrumental Neutron Activation Analysis on Wendat Collections*

Copper-based metal artifacts, often crafted by Native metalworkers from European introduced trade kettles, are a common class of artifacts recovered from Early and Middle Contact Period sites in the Northeast. In the last twenty years, archaeometric techniques have been used to investigate these artifacts from a number of sites in Ontario, in part to delineate their intra- and inter-site distribution. This presentation is a review of the instrumental neutron activation analyses of the copper-based metal collections from the Ball, Auger and Robitaille sites, medium-to large-size Wendat villages dating between circa 1580 and 1640 AD.

[229] *Discussant*

**Antón, Susan** [84] *see Carlson, Lisabeth*

**Antrobus, Kathy** [36] *see La Pierre, Kish*

**Aoyama, Kazuo (Ibaraki University, JAPAN)**

[156] *Socioeconomic and Political Implications of Lithic Artifacts from the Aguateca Region, Guatemala*

This paper discusses the results of an analysis of more than 29,000 lithic artifacts collected in and around a Classic Maya city of Aguateca, Guatemala, and studied between 1998 and 2005. The data on obsidian artifacts indicate a skewed distribution, suggesting that the rulers of Aguateca had the most access to obsidian in the city while the procurement and distribution of obsidian polyhedral cores may have been administered by the royal court of the Aguateca dynasty as part of its political economy. The data from Aguateca are consonant with the interpretation of Mesoamerican obsidian core-blade technology under elite control.

**Aponte, Delia [21]** *see Peters, Ann H.*

**Applegate, Darlene (Western Kentucky University)**

[251] *Formation Processes at Historic Graveyards*

Graves and grave markers at historic cemeteries are subject to a wide variety of cultural, biological, and geological processes that affect their condition and spatial properties. Based on recent investigations at three historic graveyards in south-central Kentucky, this paper will examine the effects of farming, livestock trampling, tree growth, sedimentation, facilities maintenance, and other formation processes in the context of family burial plots.

**Aprile, Jamie (UCLA Archaeology Program)**

[201] *The Political Economy of Late Bronze Age Mycenaean Greece: Corporate or Network Strategy?*

Mycenaean culture is generally considered a complex society, but a cross-cultural approach introduces new interpretations and evolutionary patterns indicative of broader cultural processes. Using the Dual-Processual Theory (Blanton et al., 1996), this paper examines societal evolution in Late Bronze Age Greece and suggests that administrative centers were located at trade network nodes where both archaeological and textual evidence suggest that community leaders used the network strategy to organize the political economy. Two case studies, the administrative centers at Pylos and Thebes, illustrate the applicability of the model for explaining Mycenaean cultural change and help formulate a number of research questions.

**Arana, Raul (INAH) and Chacon, Carmen (INAH)**

[200] *Simbología y Conservación del Monumento Arqueológico Templo del Fuego Nuevo*

En el 2003 con fondos del INAH se realizó un proyecto arqueológico de investigación exhaustiva para la recuperación y conservación de uno de los monumentos más importantes de la época prehispánica relacionado con la gran ceremonia del fuego nuevo celebrada cada 52 años. Se encuentra ubicado en la cima del cerro de la estrella, el cual en el momento de la conquista europea se le denominaba Huixachtécatl; actualmente se trata de un espacio público registrado como área de protección ecológica y arqueológica localizado en Iztapalapa en la Ciudad de México.

**Arbolino, Risa Diamond (Smithsonian/NMNH) and Nelson, Katherine (Kit) (Tulane University)**

[129] *Early Excavations at Amoxiumqua and Giusewa: Evidence from the Classic and Historic Periods in the Jemez Area*

The dynamic period that spans the Classic to the Historic in the Jemez Area is documented in the sites of Amoxiumqua and Giusewa. Based on re-evaluations of maps, notes and pottery collections from the 1910-1911 excavations of these sites held at the Smithsonian's National Museum of Natural History, two very different sequences of occupation are revealed. The pottery types present and their attributes provide insight into expected differences between long and short occupations while also providing a basis for discussing the role of regional interaction for these divergent sequences.

**Arbuckle, Benjamin (Harvard University)**

[215] *The Evolution of Pastoral Production in Central Anatolian Prehistory*

This paper examines the evolution of sheep and goat production strategies in central Anatolia in the Neolithic, Chalcolithic, and Bronze Age through the analysis of faunal remains. Changes in the organization of production are viewed in the context of the development of middle range and early complex societies. Several models describing how pastoral systems are integrated into these societies and affected by socio-cultural evolution are evaluated with special emphasis on the development of systems of specialized production.

**Arbuthnot, Michael (Environmental Services, Inc.) and Jateff, Emily (Flinders University)**

[250] *The 2005 Expedition to RMS Titanic: An Archaeological Approach to a Famous Shipwreck*

In June and July of 2005, an expedition to RMS Titanic performed the first archaeological survey on the interior of the famous ocean liner. Using remotely operated vehicle (ROV) technology, hours of precisely controlled video image data were gathered for interpretation by project archaeologists and historians. Sections of RMS Titanic were examined holistically, individually, and by 'room assemblages'. This paper will provide an outline of the methodology incorporated during the 2005 expedition, as well as its results, including data obtained from Titanic's Turkish Baths.

**Arce, Carlos Lazcano (Coordinación de Humanidades Universidad Nacional Autónoma de México) and Serra, MA. Carmen (Coordinación de Humanidades Universidad Nacional Autónoma de México)**

[142] *Patrimonio Regional: El Sitio de Cacxtla-Xochitecatl como una Alternativa Sustentable de Investigación y Conservación*

El entorno geográfico, ambiental y ecología (paisaje); la gente (patrimonio intangible), la gastronomía y los modos de subsistencia artesanales, entre otros, conforman junto con los sitios arqueológicos una amalgama de - elementos que se entrelazan, que conviven y que generan un patrimonio que no siempre es considerado en forma - conjunta. En esta ponencia tomando el caso del sitio arqueológico de Cacxtla-Xochitecatl, se expone un punto de vista regional que considera necesariamente de forma grupal a estos elementos. Ello busca hacer posible entender al patrimonio no como entidades aisladas (arqueológico, ecológico, etcétera), sino como producto de la acción humana (social y natural), con un devenir histórico que se transforma de manera continua y que en ocasiones también se pierde. Así de acuerdo con esta concepción, una protección efectiva debe considerar la totalidad de sus componentes.

**Archer, Gavin [44]** see Pentney, Sandra

**Arco, Lee (Washington University in St. Louis)**

[242] *Geoarchaeological Investigation of Mound A at Poverty Point*

Soil core extraction and the reopening of the South Profile of Mound A at Poverty Point reveal the construction history of one of the largest earthworks in North America. South Profile stratigraphy suggests rapid, single-stage mound construction. Soil cores from the Mound A platform reveal a ubiquitous submound midden. Field observations of mound stratigraphy are enhanced by micromorphology samples from core strata and thin-section analysis of contact zones between distinct basketloads. Microartifact and particle-size analysis of sediment investigate the nature and formation of the submound midden as well as post-construction modification of the mound surface.

**Arden, Traci [177]** see Manahan, T. Kam

**Arendt, Beatrix (University of Virginia) and Andersen, Cathryn (Torngâsok Cultural Centre)**

[92] *"From the Descendants of Hebron:" The Contemporary Relevance of Archaeology at a Moravian Mission in Labrador*

The standing architecture of the Moravian Mission at Hebron (1830-1959), Labrador testifies to a social and religious experiment that links the German church with Canadian Inuit. With the arrival of the missionaries, the landscape that provided spiritual and economic sustenance for the Inuit was transformed by roads, gardens, and buildings. In this paper, we outline archaeological and historical work that maps changing relationships between Inuit, their houses, and the surrounding landscape. A proposed research collaboration between the Nunatsiavut government, the Labrador Inuit Association, Inuit elders, and archaeologists will explore the relevance of Hebron to contemporary Inuit.

**Arias, Veronica (University of New Mexico), Richards, Heather (University of New Mexico) and van der Elst, Judith (University of New Mexico)**

[148] *Developing Spatial Thinking in Archaeology through GeoScience*

Given that natural and cultural phenomena take place in space, spatial thinking is essential to analyze relationships and solve real-world problems. Archaeologists deal with information that is inherently spatial in nature; thus archaeology provides an ideal setting to develop spatial

thinking. Geospatial technologies such as Geographic Information Systems (GIS) and Remote Sensing provide tools that are well suited to address archaeological questions. However, we recognize the limitations of these technologies and emphasize the need for educational strategies and an Anthropology Curriculum that focus on spatial reasoning skills and assessment that prepare students as critical thinkers and users of GeoScience.

**Arkush, Elizabeth (Wayne State University)**

[51] *Theorizing the Late Intermediate Period in the Andes: Large-Scale Patterns, Local Trajectories*

The Late Intermediate Period is traditionally considered a time of regional differentiation rather than a horizon. However, this designation obscures several large-scale patterns which existed even in the absence of umbrella political or religious institutions: defensive settlement design, political fragmentation and limited reconsolidation, the development of local ethnic identities, chulpa burial and ancestor worship, relatively small settlement sizes, etc. This paper opens the session by briefly exploring some possible explanations - previous state collapse, climate change, and migration - and the archaeological implications and contradictions they raise. Examples are drawn from the Titicaca Basin.

**Armit, Ian (Queens University Belfast)**

[128] *Head-hunting in Iron Age Europe: Ritual Violence and Social Authority*

Europe has widespread evidence (literary, iconographic and skeletal) for the removal, curation, and display of the human head. Individual cases have generally been regarded as indicating local adherence to a perceived pan-Celtic tradition. The concept of a culturally unified "Celtic people" has, however, been increasingly questioned in recent years and it is clear that special treatment of the head was by no means restricted to any particular cultural area. Drawing on anthropological studies of more recent societies it is possible to begin a reassessment of the evidence for Iron Age head-hunting in Europe.

**Armstrong, Douglas [70]** see *Lenik, Stephan*

**Arnold, Bettina (University of Wisconsin-Milwaukee)**

[188] *Landscapes of the Living Dead: The Early Iron Age of West-Central Europe*

Mortuary monuments dominate the early Iron Age landscape of west-central Europe both literally and figuratively. The burial mound complexes of the period have provided most of the data available for understanding social configurations during this time, but the existing models tend to treat the mortuary record as relatively uniform and static. In fact, regional and temporal variations are considerable and are still poorly understood. This paper will provide a review of those variations, including variables such as size ranges within and between mound groups, presence or absence of basal demarcation, proximity to other mounds, settlements, and topographic features.

[211] *Discussant*

**Arnold, Jeanne E. (University of California, Los Angeles) and Graesch, Anthony P. (University of California, Los Angeles)**

[44] *Modern Material Culture Revisited: Contributions to Archaeological Interpretations from Studies of Artifacts and Activities in Modern Domestic Settings*

Modern material culture studies - including ethnoarchaeological investigations in contemporary domestic settings - can assist in the development of middle-range theory and offer insights to practitioners of "traditional" archaeology about artifacts, identity formation, utilization of spaces, and architecture. A six-year project is underway in Los Angeles on the houses, assemblages of possessions, and home-based activities of middle-class homeowners. This poster presents results from two current research domains of the broader study. The first focuses on the classification and display of artifacts central to the formation of family identity. The second centers on the sensitivity of domestic architecture to changes in household organization through time.

**Arnold, Richard [2]** see *Stoffle, Richard*

**Arrowsmith, Ramon [220]** see *Barton, Michael*

**Arroyo, Barbara (Universidad de San Carlos de Guatemala)**

[9] *Frederick J. Bove's Contribution to Guatemala and the Archaeology of the Pacific Coast*

Frederick J. Bove has dedicated the last 30 years to the archaeology of the Pacific Coast of

Guatemala. By doing so, he has trained many students in Guatemala and inspired many others to continue work on the Pacific Coast. Beyond the academic background, Fred Bove has been an example for many to fully dedicate to important research questions as well as become professional archaeologists.

**Arroyo-Cabral, Joaquin (Instituto Nacional de Antropología e Historia, México) and Johnson, Eileen (Museum of Texas Tech University)**

[144] *Quaternary Mexican Mammals Database: An Update*

In 1994, a bibliographic-based database on the Mexican Quaternary mammals project was undertaken by the authors and the Fryxell honoree. Since then we have developed a large database that includes records for more than 800 localities and 250 species. Based on such database, some studies on particular groups (proboscideans, horses, lagomorphs, xenarthrans, among others) were accomplished, as well as specific searches for several particular taxa, for either geographic records or dating; furthermore two projects on completing absolute dating for several sites were initiated. Forthcoming analyses would include a monographic study for the overall mammal fauna, and the use of the data in GARP modeling.

**Arroyo-Kalin, Manuel (University of Cambridge)**

[202] *A Historical Ecology of Pre-Columbian Central Amazonia*

Radiocarbon dates, settlement data, stratigraphic information, and geoarchaeological data generated by the Central Amazonian Project are articulated in this paper to present a model of landscape evolution within which to understand formation processes of both Archaic and Formative age sites. Based on this framework, a broad overview of the evidence for anthropogenic landscape transformations of the Central Amazon region before the European colonization of the sixteenth century is presented. This provides another angle on different but probably conjoined socio-historical trajectories that flourished as different historical ecologies in the heart of the Amazon.

**Arthur, John (University of South Florida St. Petersburg)**

[247] *Standardization at the Individual, Village, and Regional Scales: An Ethnoarchaeological Study of the Gamo of Southwestern Ethiopia*

Previous research has shown that there are many factors, such as vessel type, size, and function, producer skill, and market systems, which can affect pottery standardization. In this paper, I use ethnoarchaeology to explore how the social and economic organization of the Gamo living in southwestern Ethiopia affects pottery standardization. This analysis compares standardization at the individual, village, and regional level to test our assumptions regarding potter standardization from potters who are full-time craft specialists living in a complex and highly stratified society.

**Arvelo, Lilian (Instituto Venezolano de Investigaciones Científicas)**

[34] *The Chibcha Expansion in Northwestern Venezuela: Discussion About Recent Archaeological Research*

Recent regional archaeological research in northwestern Venezuela has thrown new light on issues concerning the emergence of social complexity in the area, especially between 1000-1540 AD. At the same time, the old hypothesis of human migration based on linguistic correlation with archaeological series and styles in this region has been put aside. In this paper I will discuss both sets of hypotheses, migration and the rise of chiefdoms, in an effort not to throw out the baby with the bathwater. Special emphasis will be put on the analysis of the archaeological evidence traditionally related to Chibcha-speaking groups in Northwestern Venezuela.

**Asch, David L. (New York State Museum) and Van Nest, Julieann (New York State Museum)**

[96] *Archaeobotany of a Perch Lake Mound, Jefferson County, Northern New York*

At Perch Lake east of Lake Ontario is a group of up to 200 low, annular prehistoric mounds whose fills, according to W.A. Ritchie, consist of black soil, burnt rock, and charcoal. Neither burials and ceremonial objects nor normal midden concomitants of artifacts and food remains have been reported. Conjectures about site function range from service in fire ceremonialism to use as cooking loci analogous to Texas rock middens. Flotation samples from test excavations at Mound C-1 contain charred plant remains informative about site structure, the character of fuels, and possible use of the mound for specialized food processing.

**Ashley, Keith [242]** see *Stephenson, Keith*

**Ashley, Michael (ArchaeoCommons / Alexandria Archive Inst.) [184] Discussant; [214] Discussant**

**Ashmore, Wendy (UC Riverside)**

[47] *Mobile Bodies, Empty Spaces*

Among Jane Buikstra's many interests is relating burial and mortuary processes to space, place, and landscape. Her extraordinary expertise in bioarchaeology leads her principally to consider instances involving actual corporeal remains. This paper looks instead at complementary situations, where archaeologists have encountered spaces—large or small—that were prepared as if to receive the dead, but where bodies were found to be absent. The focus is occurrences documented for ancient Maya society, reflecting on inferences about such "absences"—about why bodies would have been moved, or recognizing cenotaphs or other circumstances where interment never took place.

**Atalay, Sonya (Stanford University) [94] Discussant**

**Atherton, Heather (Columbia University)**

[233] *Imperial Strategies in the Borderlands: Social Implications of Defense at the Spanish Colonial Settlement of San José de las Huertas*

Empires have employed a variety of strategies to maintain their borders. During the mid-18th century in the Rio Grande area of New Mexico, concern over aggressive activities of Indian groups led to a policy of establishing buffer communities to deter raids on the capital and principal settlements of the region. Through the examination of the buffer community of San José de las Huertas, this paper considers the social implications of this one imperial strategy on peoples who were minimally incorporated and occupying the edges of empire.

**Atherton, Heather [91] see Rothschild, Nan**

**Atici, Levent (Harvard University)**

[215] *Epipaleolithic Caprine Hunting in the Southwest Taurus Mountains*

This paper focuses on caprine hunting during the Epipaleolithic, a period of intensified exploitation of resources and the emergence of a series of significant changes in hunter-gatherer lifestyle that may have led to sedentary agricultural economies. Rich archaeofaunal assemblages excavated from a caprine-dominated site, Karain B Cave, SW Turkey, are analyzed in order to shed new light on the nature of hunter-gatherer adaptations and changes in their intensive exploitation of wild sheep (*Ovis orientalis*) and goat (*Capra aegagrus*) during the part of the Epipaleolithic period that extends from approximately 20,000 to 17,500 calibrated years BP.

**Audet, Carolyn (Vanderbilt University)**

[190] *The Political Organization of the Belize River Valley*

Previous research on the political organization of the Belize Valley has traditionally ignored the site of Baking Pot due to the dearth of published material. Investigators have now discovered evidence indicating that the site was a wealthy and prominent center during the Late Classic period. The excavation of an elaborate palace complex, several temples, and numerous plazuela groups, suggests that the elites at Baking Pot were able to manipulate their position within the region to gain trade items of political importance. Research is now focused on understanding how the rulers maintained success in the shadow of larger centers to the west.

**Audience [123] Discussant; [191] Discussant**

**Audouze, Françoise (CNRS Nanterre)**

[83] *Social Diversity of the Magdalenian Hunter-Gatherers of Verberie*

Multidisciplinary data recovered from Verberie (Paris Basin, France), an open-air Magdalenian hunting camp, clearly illuminate the social diversity that existed within the Upper Paleolithic group who occupied the site. Using levels of knapping competence, tasks reflected by microwear analysis, and the spatial organization of activities undertaken, we offer two scenarios. Both are based on ethnological models, with the first privileging the social/sexual division of labor, and the second centering on economic constraints. The construction of both scenarios is plagued with ambiguities that include evaluating the intensity and the duration of occupation and the contemporaneity of different tasks performed.

**Augustine, Jonah [163]** *see* Yates, Donna

**Aultman, Jennifer (University of Virginia)**

[245] *Eclipsed by Jefferson: Historic Period Landscape Change and the Low Archaeological Visibility of Late Woodland Monacan Peoples*

In Central Virginia, Monacan villages of the Late Woodland Period (AD 900-1600) occupied many of the area's few large floodplains. Recent coring, excavation, and deep trenching at one such village--likely the village known as Monasukpanough--have revealed a typical but complex sequence of settlement, plowing, deposition and erosion. This paper presents interpretations of Late Woodland (and possibly protohistoric) Monacan settlement at the village and emphasizes how these interpretations are affected by Historic Period landscape transformations.

**Aura Tortosa, Juan Emilio [199]** *see* Cacho, Carmen

**Austin, Robert J. (Southeastern Archaeological Research, Inc.)**

[248] *Cobbles, Flakes, and Sacred Stones at Fort Center*

Excavations at Fort Center in the 1960s recovered chert artifacts from several contexts. These were analyzed by Karl Steinen, who argued for on-site production of bifaces that were used to perform utilitarian tasks. Reanalysis indicates that all of the chert was imported from outcrops well to the north and that much of it arrived as finished bifaces or small cobbles. While there is little evidence for on-site production of bifaces, there is convincing evidence for the making of flake tools and microliths. Mortuary associations of thermally altered Archaic-period projectile points suggest they were destined for use in the ideotechnic realm.

**Authier, Martin (SMU)**

[107] *Settlement Distribution in the Taos Region of New Mexico: New Evidence from Anne Woosley's 1981-1984 Survey*

This presentation addresses the settlement patterns through time in the Taos area of New Mexico using data from the Taos Valley Surface Survey (TVSS 1981-1984). Woosley conducted an extensive survey in five quadrangles in the Taos area, recording sites ranging in size from small scatters to large, multi-room structures and temporally from Archaic to historic. The full survey reports have recently been made available, and have been incorporated into a GIS database. The cultural classifications have been calibrated using recent developments based on unpainted ceramic seriation by Fowles (2004). The results indicate a population change and evidence of immigration.

[107] *see* Jazwa, Christopher

**Aveni, Anthony (Colgate University) [37]** *Discussant*

**Awe, Jaime (Belize Institute of Archaeology)**

[119] *Formative Period Trade and Exchange in the Upper Belize River Valley*

Traditional reconstructions of the earliest settlements in the Maya lowlands have often depicted these communities as being relatively simple in comparison with later Classic period centers. In contrast with this perspective, this paper presents data from Cahal Pech which serve to demonstrate that the Terminal Early Pre-classic Belize Valley Maya were rather sophisticated, that they employed pan-Mesoamerican ideological concepts, and that they participated in an extensive system of intra- and inter-regional trade and exchange.

[164] *Discussant*; [164] *see* Sunahara, Kay; [174] *see* Garber, James

**Aymond, Ayla [41]** *see* Hoffman, Brian

**Azzarello, Jennifer (New South Associates, Inc.) and Loubser, Johannes (New South Associates, Inc.)**

[249] *Synthesis of Archaeological Work Along Ten Mile Creek*

As part of the Jacksonville U. S. Army Corps of Engineers compliance projects in the Florida Everglades, archaeological survey, testing, and data recovery were conducted at prehistoric sites along Ten Mile Creek, St. Lucie County. The prehistoric remains identified during these investigations provide new information on inland culture history, subsistence strategies, and settlement patterns in the East Okeechobee culture area. The synthesis outlines and combines results obtained from lithics, ceramics, settlement layout, macro-plant material, and faunal remains dating from the Middle Archaic and East Okeechobee II periods.



**Backhouse, Paul N. (Museum of Texas Tech University/ Bournemouth University) and Johnson, Eileen (Museum of Texas Tech University)**

[203] *Characterization of Local Lithic Toolstone Variability from a Quarry Neighboring the Eastern Llano Estacado: Recent Research at PLK-Locality 1*

Almost 25 years since the first systematic examination of local lithic resources for the Llano Estacado, relatively few quarries have been investigated. Fieldwork at PLK-Locality 1, an extensive quarry for Ogallala Formation gravels, has provided an opportunity to add additional qualitative data to the earlier surveys. The site has been sampled systematically in an effort to record the variability in lithic source material, technology, and geomorphic processes. The results are significant for the interpretation of lithic technology at this location and for the wider perspective of local lithic materials recovered at archaeological sites across the adjacent Llano Estacado.

**Backhouse, Tara (The Museum of Texas Tech University)**

[209] *75 Years of Photography on the Southern High Plains: The Importance of Images in Contextualizing Regional Archaeology*

Photography is well established as a vital archaeological tool. Often, after completion of a project, the photographs are not treated with the same respect as the accompanying artifacts. Photographs provide much historical and contextual information especially valuable in long-term regional investigations. The Yellowhouse System is a research program that has benefitted extensively from photographic documentation. From the beginning of its utilization as a public park system, through the earliest archaeological excavations, to the currently ongoing research, photography provides valuable comparative perspectives. Care should be taken to protect, store, and utilize photographic evidence in a manner befitting its importance.

**Bailey, David G. [138] see Day, Mary Beth**

**Bailey, Douglass (Cardiff University)**

[111] *The Corporeal Politics of Being in the Neolithic*

Between 6500-3500 cal. BC, southeast European people made, handled, and threw away anthropomorphic figurines. Figurines fill sites, museums and the literature, though the latter struggles with their meaning. This paper examines subtle processes that solidified fluid notions of being within Neolithic villages. Figurine homogeneity suggests emergent corporeal registers that stimulated people's thinking about being human and about how to understand corporeal similarities and differences. Stereotypes, speculation, and forced inference are all at play as are debates about body-parts and body-image construction. Relevance is for European prehistory and other regions and periods in which the human form is represented in three-dimensions.

**Bailey, Geoff (University of York) [8] Discussant**

**Bair, Daniel (Brigham Young University), Terry, Richard (Brigham Young University) and Moriarty, Matthew (Tulane University)**

[80] *Soil Chemical Analysis of Ancient Maya Activities at Trinidad de Nosotros, Guatemala*

The ancient Maya site of Trinidad de Nosotros lies on the shores of Lake Petén Itzá in northern Guatemala. The central location of the site suggests that marketplace and ceremonial activities may have occurred at the site. We sampled several plazas to determine levels of phosphate and heavy metals that may represent chemical residues of ancient human activities. Higher phosphate levels in comparison to surrounding areas have been used to indicate areas of food preparation and consumption. Elevated concentrations of heavy metals often indicated ritual or workshop activities.

**Baker, Jonathan (University of Tennessee)**

[239] *Applied Zooarchaeology: Archaeological Freshwater Mussel Assemblages from the Upper Mississippi River Drainage and Their Implications for Conservation Biology*

Freshwater mussel populations throughout eastern North America are critically imperiled. Examination of nearly 60 archaeological assemblages of freshwater mussels from the Upper Mississippi River Drainage has built a more comprehensive understanding of their pre-European geographic distribution and population dynamics, creating an important aid to conservation efforts. Although these assemblages are biased by a number of factors, including aboriginal collection techniques, their value to conservation biology should not be discounted. The application of zooarchaeological knowledge to conservation issues is a growing avenue of research that can no longer be overlooked and will ultimately become a major asset to both fields.

**Balkansky, Andrew K. (Southern Illinois University Carbondale)**[49] *Huamelulpan and the Nature of the Mixtec City*

Marcus (1983) identifies multiple nuclei cities among the variant forms of Mesoamerican urbanism. Huamelulpan and other Formative Mixteca Alta cities had multiple nuclei settlement patterns; new research on their archaeological precursors suggests how these patterns originated. This paper views the Mixtec urbanization at several scales, from excavations in Middle Formative barrios to survey-based comparisons of Huamelulpan and its contemporaries in neighboring valleys. The multiple nuclei settlement pattern--that predates the Mixtec urbanization--was a major structuring principle that continued into the Colonial period. This generic similarity nonetheless diverges into varied forms as each specific case is examined in detail.

**Ball, Elizabeth [132] see Hailey, Tommy**

**Baltali, Sevil (University of Virginia)**[232] *Social Organization and Ritual-Architectural Spaces in Northern Mesopotamia*

Ancient northern Mesopotamia reveals the formation of hierarchical societies within the context of cultural interactions with southern Mesopotamian Uruk polities (3700-3100 BC). I focus on the ways northern Mesopotamian societies were organized with an emphasis on identifying the relationship between house and temple form and function, and social organization. This paper examines northern Mesopotamian houses and temples as social spaces through which larger dimensions of social relations were produced, reproduced and transformed. I discuss how these spaces were constructed and used as sources of power within northern Mesopotamian societies. I focus on two major sites: Arslantepe in Turkey and Tepe Gawra in Iraq.

**Bamforth, Douglas (University of Colorado, Boulder) [226] Discussant**

**Bampton, Matthew (University of Southern Maine), Hamilton, Nathan (University of Southern Maine) and Mosher, Rosemary (University of Southern Maine)**[148] *GIS, Faunal Remains and Public Archaeology in the Gulf of Maine*

Prehistoric subsistence patterns for Casco Bay and the Gulf of Maine are examined with GIS for public outreach and cultural heritage reconstruction and preservation. The 5000 year faunal record for Casco Bay is supplemented with select published sites in the Gulf of Maine to illustrate time transgressive and geographic patterns of species usage. Numerous stratified sites in conjunction with radiometric assay and diagnostic artifacts aid in chronometric refinement. The presentation also examines palaeodemographics of codfish as well as creating time specific diversity terrains. This project focuses on the rich and diverse maritime character of a complex and dynamic coastal setting.

**Bandy, Matthew (University of Oklahoma)**[7] *The Neolithic Demographic Transition and Its Consequences*

Archaeologists and demographers have recently begun to define a cross-cultural demographic pattern associated with the beginnings of agricultural village life worldwide. Bocquet-Appel has termed this demographic process "the two-stage Neolithic demographic transition." In this paper, I will examine some of the consequences of the Neolithic demographic transition by reviewing changes in human health, demography, and social and symbolic behavior in a variety of early village societies. Comparative analysis will be accomplished using a relative chronology of the transition as proposed by Bocquet-Appel.

**Bánffy, Eszter (Archaeological Institute, Budapest)**[19] *The Mesolithic/Neolithic Transition in the Carpathian Basin (Eastern Central Europe), Presenting Different Models within Similar Ecological Regions*

Within the spread of Neolithic towards the inner regions of Europe, the Carpathian Basin plays a decisive role in several aspects. One of these is the fact that it was the early LBK of Western Hungary, formulated through the cultural and genetic mixing of local foragers and migrant farmers which, rapidly spreading westwards, using already existing pre-Neolithic contacts, became a basis for Central European Neolithic societies. The paper discusses two questions: Why exclusively the Trans-Danubian LBK played a role in the Central European neolithisation? What could be the reason of the vivid and long-lasting contacts between W-Hungary and NW-Germany in the 6th millennium BC?

**Baquedano, Elizabeth (Birkbeck College University of London) and Peraza, Carlos (INAH, Merida Yucatan)**

[119] *Bells, Warriors and Trade in Mayapan, Yucatan*

The excavations at the archaeological site of Mayapan have revealed evidence of a large number of copper bells of different size and shape. These have been found in buildings inhabited by members of the elite. Copper bells have been found associated with obsidian blades and with pottery vessels, as well as with miniature size vessels filled in with copper. In this paper we consider the possibility that these metal artifacts would have been manufactured at Mayapan, or that a group of artisans would have worked copper with the intention of trade and/or exchange.

**Barajas-Morales, Josefina [158] see Rodriguez, Marcianna**

**Barba, Luis (UNAM), Pecci, Alessandra (Siena University) and Lazos, Luz (UNAM)**

[185] *Comparison between GC-MS and Spot Tests to Identify Fatty Acids*

In Mexico and Cuba, spot tests have been used to study the chemical enrichment patterns in plaster and dirt floors resulting from human activities. The reliability of these techniques has been confirmed by ethnoarchaeological, archaeological, and experimental studies. In this paper, we discuss different site cases in which ceramic and floor samples were analyzed by using spot tests and GC-MS. Results demonstrate that high concentrations of fatty acids in ancient floors and ceramics correspond with the GC-MS spectrum.

**Barba, Luis [142] see Sugiyama, Yoko; [185] see Burton, James H.**

**Barba Egido, Rebeca (Universidad Complutense) and Dominguez-Rodrigo, Manuel (Universidad Complutense)**

[215] *The Oldest Central Place: A Taphonomic and Zooarchaeological Re-analysis of the FLK Zinj (Oluvai Bed I)*

A reanalysis of tooth mark frequencies carried out by the authors shows that previous estimates of tooth marks on the FLK Zinj assemblage were overestimated by mistaking natural inconspicuous marks of biochemical origin for tooth marks. Cut mark frequencies and anatomical distribution indicates that hominids had early access to fleshed carcasses that were transported, processed and accumulated at the FLK Zinj site. Therefore, food surplus might have been one of the characteristics in the accumulation of carcasses at this site. This resurrects Isaac's idea that food sharing might have been one of the stimuli generating some early sites.

**Barber, Michael B. (USDA-Forest Service) and Madden, Michael (USDA-Forest Service)**

[243] *The Zooarchaeology of the Middle Woodland Occupation at Maycock's Point, Prince George County, Virginia: An Evolutionary Approach*

The Maycock's Point site, located on the James River, was studied by the College of William and Mary in the 1970s. Among the components examined was a portion of a Middle Woodland Mockley ceramic-bearing shell midden. Although field techniques of the period limited recovery, the faunal assemblage provides insight into the overall subsistence, settlement pattern, and bone tool assemblage. This paper will discuss the implications of the recovered vertebrate fauna with regard to remaining subsistence elements including invertebrates and plants, both domesticated and wild. Finally, the changes in the bone tools will be examined within a framework of punctuated equilibria.

**Barber, Sarah (University of Colorado)**

[54] *Persistent Identities: Community Tradition and Political Centralization in Coastal Oaxaca*

The Terminal Formative Period saw the first centralized regional polity in the lower Rio Verde valley of Oaxaca, Mexico. Despite increasing social inequality and the development of regional political authority, elites and commoners continued to commemorate local histories and reiterate local identities. This paper examines how tradition and memory were employed in ritual practice to transform inequality and extra-local authority into expressions of local community identity. I argue that the persistence of local identities represents ongoing negotiation between elites and commoners, as well as local and regional political formations, regarding the character of Terminal Formative sociopolitical relations.

**Barfield, Thomas (Boston University)**

[233] *Shadow Empires in Archeological Perspective*

Some polities that act effectively as empires often leave so few archeological traces that historical accounts that document their power and wealth seem suspect. Such "shadow empires"

took on the trappings of empire but without its infrastructural baggage. These included the domination of sea trade routes without controlling the production of goods traded and using their military power to extort subsidies and tribute from neighboring states. Other types of more ephemeral empires developed in the wake imperial collapse by functioning at a lower level of integration or by making imperial claims that had little reality on the ground.

**Barfuss, William (Valles Caldera National Preserve)**

[39] *Managing a Wealth of GIS Data on the VCNP*

This poster summarizes archaeological site data gathered since the 89,000-acre Valles Caldera National Preserve in northern New Mexico was federally acquired from private ownership in 2000. Emphasis is placed on the challenges of developing a GPS/GIS-linked relational database and field data-recovery strategies capable of facilitating a wide range of analytical possibilities while accommodating the high density of cultural resources and diverse site size, including large obsidian quarries.

**Barker, Alex (Milwaukee Public Museum) [11] Discussant**

**Barlow, Renee (Utah Museum of Natural History), Towner, Ron (University of Arizona Laboratory of Tree Ring Research), Salzer, Matt (University of Arizona Laboratory of Tree Ring Research) and Yentsch, Andy (University of Utah)**

[106] *Dendroarchaeology of the Fremont*

Tree-ring dating of Fremont sites began in the 1940s with the work of Schulman and Ferguson, and we continue this vital research in the Range Creek drainage. The archaeological record has yielded hundreds of well-preserved timbers in storage features, in addition to maize cobs and kernels, parched grass seeds, gourd fragments and other perishables. We present the preliminary results of analyses of living tree and archaeological samples in order to develop tree-ring chronologies, date Fremont archaeological sites and identify prehistoric variation in precipitation, and the probable effects on prehistoric crop yields and storage and land use strategies.

**Bar-Matthews, Miryam [59] see Marean, Curtis**

**Barnard, Philip (MRC Cognition and Brain Sciences Unit) [98] Discussant**

**Barnes, Benjamin (Lone Mountain Archaeological Services, Inc.)**

[125] *Defending Dinétah: Pueblo Defensive Sites Cultural Landscape Modeling*

Culture contact turns to conflict on the northern periphery of Spanish control between the Rio Grande and San Juan rivers, as the Athapaskan progenitors of the historic and modern Navajo peoples transition from mobile hunter-gatherers to mobile pastoralists. Conflict among the Navajos, Utes, and Comanches prompts the construction of numerous defensive sites in the time between the Pueblo Revolt and the Navajo abandonment of the Dinétah (1680 to 1754). Spatial and viewshed analysis of the distribution of these Pueblo sites helps create a cultural landscape model of Diné domestic defense of the Dinétah.

**Barnes, Ethne [224] see Watson, James**

**Barnes, I. Lynus [244] see Brill, Robert H.**

**Barnes, Kelli (DECAM, Ft. Carson, CO / ICI, LLC)**

[209] *Game Drives and Mental Templates: Finding Meaning Beyond the Twenty-Meter Buffer*

Recent revisits to previously recorded sites at the Pinon Canyon Maneuver Site in Southeastern Colorado have resulted in the conclusion that at least two prehistoric game drives were originally misclassified. This paper will explore the reasons that such localities were not originally recognized as hunting complexes. Methods for discovering additional drives will be proposed and will include examining site records for hunting themes in rock art or potential drive walls. GIS data will be incorporated to explore patterning in the types of landforms where such evidence is located. Limited ground-truthing will test these methods.

**Barnes, Mark (National Park Service)**

[130] *National Historic Landmark Site Initiative in the Southeastern United States*

The National Historic Landmark (NHL) program was created by the 1935 Historic Sites Act with the primary purpose of identifying archeological and historical sites that could illustrate the

prehistory and history of the United States as units of the National Park Service. Over the last seven decades the purpose of the Act has evolved to include working with a number of other federal, state, and local agencies, and private organizations and individuals to preserve nationally significant sites for both public interpretation and preservation as archeological research preserves. The speaker will review the history of the NHL program and the efforts of the Southeast Region of the National Park Service to preserve a number of nationally significant prehistoric and historic sites in the Southeastern United States and American Caribbean.

[130] *Discussant*

**Barnhart, Edwin (MAYA Exploration Center)**

[49] *Indicators of Ancient Maya Social Organization in the Urban Layout of Palenque*

Based on a new map of Palenque finished in 2000, this paper discusses the possible social organization models that could fit the city's settlement pattern. The residential zones of the urban core are specifically analyzed in terms of spatial arrangement, size variation, and integration. New light is also shed on Joyce Marcus's 1983 theory of multi-nuclei Maya center formations. The conclusions suggest that modern Maya settlement patterns may be useful in understanding their ancient predecessors.

**Bar-Oz, Guy [215]** *see* Munro, Natalie

**Barrentine, Erin (Washington State University)**

[107] *An Exploration of Basketmaker Residential Mobility*

Data from the Cedar Mesa Project are used to explore occupation duration among Basketmaker II and Basketmaker III sites located on Cedar Mesa in Southeastern Utah. Multiple lines of evidence, including ceramic and lithic midden accumulations, are used to estimate occupation duration and residential mobility at these sites. Published data from other excavated sites on Cedar Mesa are also considered. Estimates of the duration of site occupation at BMII and BMIII sites are evaluated in light of earlier research on sedentism and the process of agricultural intensification in this area, with results suggesting even shorter occupations than previously assumed.

**Barrett, Jason W. (Texas A&M University)**

[87] *Stone-Age Economics Revisited: An Examination of Lithic Resource Use among the Ancient Maya in Upper Northwestern Belize*

Lithic resource exploitation by the ancient Maya in upper northwest Belize centered on several bajos. Intensive tool production began during the Late Preclassic period and continued through the Late Classic. Production localities exhibited some variation in tool forms, reduction trajectories, and longevity of use. These variables reflect natural, cultural, and historical influences. Demand for regional resources increased dramatically in the Late Classic due to population pressures and decreasing long-distance imports. Diverse conservation strategies were practiced during the Late Classic, reflecting an adaptation to increasing resource shortages. Many resource nodes became exhausted and were eventually abandoned.

[150] *see* Dickson, D. Bruce

**Barrientos, Tomás (Universidad del Valle de Guatemala) and Demarest, Arthur (Vanderbilt University)**

[14] *Hydraulics, Ideology and Power: New Perspectives and Evidence from Cancuen*

This paper will present a comparative analysis of previously known Maya hydraulic systems in Peten, Campeche and Yucatan, with the ones recently investigated at the ancient Maya city of Cancuen, where surveys and excavations have provided evidence that allows new evaluations on the function of Maya hydraulic systems. At Cancuen, beside its drainage and storage functions, water canals and reserves served as purification places and as a tool for ideological and political goals. The importance of these hydraulic systems will be considered as part of the basis of power for the Lowland Classic Maya Civilization.

**Barrientos, Tomas [238]** *see* Demarest, Arthur

**Barriónuevo, Monika [212]** *see* Wise, Karen

**Barse, William (Smithsonian and URS Corp)**

[166] *Yale's Ronquin Collection and Its Contributions to Orinocan Prehistory*

Ronquin, excavated by Howard in 1941, has played an important role in Orinocan prehistory. It

was the first stratified site to provide a relative sequence of ceramic components in the Orinoco. Additional excavations at Ronquin in the 1970's resulted in varying interpretations of its chronology. Howard's collection at Yale, totaling more than 14,000 specimens, has offered new insights into depositional events and the site's Saladoid to Arauquinoid chronology. Using Ronquin, this presentation focuses on Orinocan paleosols, ceramic chronology, site structure and the relationship between Ronquin and upstream Saladoid components in Amazonas State.

**Barton, Michael (Arizona State University), Sarjoughian, Hessam (Arizona State University), Falconer, Steven (Arizona State University), Mitasova, Helena (North Carolina State University), Arrowsmith, Ramon (Arizona State University) and Fall, Patrici**

[220] *Modeling Long-Term Landscape Dynamics and the Emergence of Intensification*  
Human activities in general and agricultural practices in particular have direct and indirect, long-term consequences on landscapes that vary in intensity, time, and space. These consequences structure the ecological framework that both limits and enables subsequent practices. Agricultural intensification and its landscapes are emergent consequences of this recursive dynamic. We are developing a suite of simulation models characterizing interactions between agricultural practices and landscape change for the Mediterranean Basin. Here, we report on initial work that integrates agent-based models of village farming and GIS-supported surface process models to capture the long-term dynamics of socioecological landscapes.

**Barton, Michael [107]** see *Peeples, Matthew*; see *Miller, Alexandra*; see *Passick, Todd*; see *Allen, Eowyn*

**Bartone, Robert (University of Maine at Farmington), Moraes, Claide (Universidade de Sao Paulo), Petersen, Jim (University of Vermont at Burlington) and Neves, Eduardo (Universidade de Sao Paulo)**

[202] *Pre-Columbian Settlement in the Central Amazon: New Insights from the Rio Solimoes - Rio Negro Interfluve*

Current models of Amazonian settlement, both at the community and regional scale, are explored in light of new information and data from the Rio Negro-Solimoes confluence of the central Brazilian Amazon. Increasing community size and regional intensity of habitation coincide with shifts in ceramic complexes, and the beginnings of major landscape modification, namely the formation of terra preta or Amazonian Dark Earths. This change in the cultural landscape of the central Amazon is not a linear, historical trajectory, nor is it reflective of simple ecological-or resource-oriented variables, but rather echoes broad-scale political economic change within the region.

**Bar-Yosef, Ofer [197]** see *Belfer-Cohen, Anna*

**Basgall, Ashly [209]** see *Reher, Charles*

**Bass Rivera, Angelyn [48]** see *Rainer, Leslie*

**Bastis, Kristen (University of Connecticut)**

[132] *Bones, Coffins, and Hardware: The Bioarchaeology of the Bulkeley Tomb in Colchester, Connecticut*

Archaeologists look for social status reflected in mortuary behavior. The mortuary context reflects the status of an individual or family, particularly in historic euro-American populations. The analysis of the Bulkeley Family Tomb indicates the family's lifestyle, health and nutrition and provides information concerning mortuary custom. In America, before the mid 19th century, the wealthy were using mortuary goods thought to be the provenience of the poor. The analysis suggests this situation has more to do with the political situation than the social status of the individuals who have been interred.

**Bate, Emma (Indiana University)**

[134] *Sand, Sun, and...Archaeology?: On the (Non)Development of Archaeotourism in the Caribbean*

Tourism is the lifeblood of many Caribbean countries. Thousands of foreign tourists visit these countries every year, bringing millions of dollars into their economies. Yet the development of archaeological sites for tourism, so successful in other parts of the Americas, has been neglected in the islands of the Caribbean. In the Dominican Republic, where Taino civilization at its height and the first European cities in the New World coexisted, this seems a curious omission. This paper addresses some of the political, social, economic, and academic factors that have played into this apparent contradiction.

**Bauder, Jennifer [141]** *see Alfonso, Marta*

**Bauer, Alexander (University of Pennsylvania)**

[124] *Archaeologists and Export Regimes: A Critical Perspective*

It goes without saying that archaeologists deplore looting of archaeological materials and advocate any policy that might diminish the destruction it causes. As a result, we often unquestioningly support attempts by other nations to prohibit export of cultural artifacts. At the same time, however, many archaeologists are critical of essentialist and nationalist interpretations of the past, which underpin most export embargoes. In this paper, I argue that we must approach our advocacy for embargoes in a more critically engaged way, both to avoid undermining our own legitimacy in the policy arena and to promote better solutions to the looting problem.

**Bauer, Andrew (University of Chicago) and Kosiba, Steven (University of Chicago)**

[101] *Critical Perspectives on GIS: (Re)Considering "Landscape" and Its Relationship to Socially and Culturally Mediated Land Use*

Although GIS landscape analyses have become increasingly popular in archaeological investigations, many studies remain problematic due to a lack of consensus regarding the conceptual definition of "landscape". Indeed, GIS analyses tend to homogenize past people by assuming that a priori geographic and environmental features determine either the use or perception of space in ancient societies. In this paper, we suggest how a more critical use of GIS can contribute to the investigation of how landscapes are both producers of socio-political differences as well as the result of socially and culturally mediated land use.

**Bauer, Brian S. (University of Illinois, Chicago) and Kellett, Lucas (University of New Mexico)**

[51] *Late Intermediate Settlement Patterns in the Chanka Heartland (Andahuaylas, Peru)*

Issues of ethnic development, state expansion, and indigenous responses to conquests are central to modern anthropological and historical research in the Andes. Because little research has been conducted in the Andahuaylas region, the Chanka ethnic group has been largely excluded from these discussions. In this paper we present preliminary results a 300 km square archaeological survey of the Chanka heartland and discuss the social changes that occurred in the region during the Late Intermediate Period and during its subsequent control by the Inca empire.

**Bauer, Jeremy (Vanderbilt University)**

[238] *Early Classic Warfare in the Maya Lowlands: A Reconsideration of Its Nature and Technology*

Since Webster's pioneering work at Becan in the 1970s, only limited research has focused on Early Classic warfare. While studies by Webster, Freidel and Schele have focused on the evolutionary implications, environmental reasons, ideological bases and historical implications of warfare, none have addressed or investigated the change in warfare technology and its potential implications for Late Preclassic-Early Classic warfare in the Maya Lowlands. This paper will reevaluate the nature of Early Classic warfare through an analysis of several of the technologies employed -namely lithic technologies and defensive systems-- and assess the potential influence of Central Mexico.

**Bawden, Garth (University of New Mexico)**

[212] *The Late Moche City and the Nature of Andean Urbanism*

This paper examines residential architecture as the physical manifestation of the primary social unit and assumes that its related household was reactive to dynamics that impacted and shaped the wider community. It follows that broad structuring principles can be identified by examining specific residential form, content and configuration within their full social setting. Similarly, recognition of changes in residential form and patterning through time will lead to important insights regarding the evolution of social organization. Here, the author examines the residential occupation of an important north coastal valley to understand the nature of urbanism during the Late Moche Period.

**Baxter, Carey [42]** *see Britt, Tad*

**Baxter, Jane [244]** *see Burton, John*

**Baxter, Jane Eva (DePaul University) and Burton, John (DePaul University)**

[244] *700 Islands, 3 Analogs: Situating Bahamian Historical Archaeology in Comparative Contexts*

Historians and archaeologists have often compared the Bahamas to different world areas to contextualize their understanding of plantation and post-emancipation life. Archaeologists have traditionally considered the Bahamas within the purview of the Caribbean, while more recently historians have begun to consider Bermuda and the southeastern United States as useful analogs for understanding the dynamics of plantation life and emancipation in the Bahamas. This paper considers several key elements of plantation and post plantation life in the Bahamas (environment, economy, social dynamics) and begins to make some suggestions of how three different broad comparative contexts (Bermuda, Southeastern US, and the Caribbean) can help us to better understand archaeological and historical records of the Bahamas in the 18th and 19th centuries.

[5] see Mayfield, Tracie

**Bayman, James M. (University of Hawaii) and Sullivan, Alan P. (University of Cincinnati)**

[57] *Common-Pool Resources and Macro-regional Economy in the North American Southwest*

Archaeological models of macro-regional economy in Southwestern North America are generally focused on interpreting the vast interaction networks (e.g., Chaco, Hohokam, and Paquime) that emerged in the heartland traditions (i.e., Ancestral Pueblo, Mogollon, Hohokam). However, the economic organization of outlying "hinterlands" is rarely examined and theorized in sufficient detail. To remedy this situation, we apply aspects of a formal approach – common-pool resource (CPR) theory – to construct models for explaining the development of property, resource use, and external relations in two hinterland territories, i.e., the Papagueria and the Grand Canyon.

**Beach, Timothy (Georgetown University), Luzzadder-Beach, Sheryl (George Mason University), Dunning, Nicholas (University of Cincinnati), Jones, John (Washington State University) and Lohse, Jon (University of Texas)**

[87] *Bajo and Wetland Agriculture around Blue Creek and the Three Rivers Region, Belize*

We assess a decade (1995-2005) of geoarchaeological research on bajos and wetlands at Blue Creek and in the broader Three Rivers Region of Belize. Since many of these depressions have distinct Preclassic paleosols and others that are less distinct, we assess multiple proxies over different times for ancient intensive agriculture and environmental change, including stratigraphy, pollen, soil chemistry, artifacts, and surface configuration. These lines of evidence point to large scale environmental change in the Preclassic and ditching and other intensive land uses around Blue Creek in the Classic; yet the records for Maya land use and environmental change were also distinctly heterogeneous.

**Beach, Timothy** [80] see Sweetwood, Ryan V.; [87] see Luzzadder-Beach, Sheryl; [177] see Pope, Kevin

**Beale, Nicholas (University of Oklahoma) and Taliaferro, Matthew (University of Texas)**

[138] *Projectile Points and Cultural Affiliation?*

In general, Southwest archaeologists have been content with assigning projectile points to large categories that do not tell us much beyond a very broad time period. This is especially true with the Archaic of the Southwest. We should be able to go beyond simply defining and temporally categorizing projectile points to analyze the stylistic variation of these formal tools. This presentation will explore the possibility that the large amount of variation within projectile point categories is attributable to different cultural groups across the southwestern landscape.

**Beasley, Joy (National Park Service) [214] *Discussant***

**Beattie, Owen** [132] see Richards, Michael

**Beaubien, Harriet F. (Smithsonian Institution/SCMRE)**

[48] *San Bartolo's Fragmentary Finds: Conservation Approaches In and Out of the Field*

Painted stucco fragments excavated from construction fill, sherds from a ritual deposit of ceramics, fragile skeletal remains from an elite burial, and broken stone sculpture are among the materials that have received the attention of San Bartolo's artifacts conservators in both field and laboratory settings since 2002. These are used to illustrate the application of a range



conservation strategies and both traditional and new techniques, in support of the project's research, education and public outreach goals.

**Beaudry-Corbett, Marilyn (Cotsen Institute of Archaeology, UCLA)**

[9] *Pacific Coastal Guatemala Archaeology: A Historical Overview*

This paper reviews research by period. We start summarizing the state of knowledge reported by Shook in the Handbook of Middle American Indians (HMAI) (research through 1961). Then we detail mentions in the 1981 HMAI Archaeology Supplement, Projects' foci between 1981 and 1989 when the Bove-Heller volume, *New Frontiers in the Archaeology of the Pacific Coast of Southern Mesoamerica*, was published are reviewed. Finally, contrast in content of the first several annual Guatemala City archaeological symposia with the last two provides some insights into how the region is doing in moving from a "backwater" to "the mainstream."

**Beaule, Christine (Duke University)**

[170] *A Comparative Perspective on the Domestic Economy of Highland Bolivian Households*  
Changes in the domestic economy of Condor Chinoka and Jachakala households indicative of the incipient development of inter-household wealth differences and long-term changes in the social and economic organization of households are reconstructed through an approach centered on the remains of household features and activities. A range of subsistence, craft production, exchange, and ritual activities practiced by these two sites' residents are described in comparative terms. This comparison allows preliminary exploration of commonalities among Middle Horizon (ca. AD 400-800) and Late Intermediate Period (ca. AD 800-1200) occupations of small village communities in the Bolivian highlands contemporaneous with Tiwanaku.

**Beaver, John (University of Illinois-Chicago/National Museum of the American Indian)**

[92] *Reconsidering Ethnographic Modernity*

One Native American attitude toward archaeology can be expressed by the feeling, "Whose history is it anyway? Who needs archaeologists? We know our origins." Can culture histories obtained by archaeological, ethnographic, and historical studies ever be expected to have the same supportive value as more traditional tribal histories? In the case of repatriation claims, the burden of proof is placed upon the native communities to prove the validity of their claims. This paper will consider how those tribal histories can have supportive value even when it seems they must be constantly substantiated by archaeological and historical studies.

**Bechtel, Kelly (University of Maryland), Cortes Rincon, Marisol (University of Texas at Austin) and Walling, Stanley (University of Texas at Austin)**

[246] *Landscape and Subsistence in a Central Maya Lowlands Wetland Community*

Prehispanic landscape manipulation at Chawak But'o'ob, in northwestern Belize took place on a residential scale to control access and create vistas. More substantial landscape manipulation took place across large sections of the site to provide residential space on sloping terrain and to closely manage water and soil resources. The extent of these landscape modifications suggests that the Maya tendency to reshape their physical environment, so evident in cities, extended to the most unassuming sites. The symbolic aspects of landscape and hydrology are considered as are settlement and artifactual evidence for the Prehispanic use of the adjacent flood plain for agriculture.

**Beck, Charlotte [133]** see Craven, Sloan; see Schmidt, Sarah E.; see Mickle, Caryn N.

**Beck, Colleen (Desert Research Institute), Drollinger, Harold (Desert Research Institute) and Schofield, John (English Heritage)**

[6] *The Archaeology of a Peace Camp*

Across from the entrance to the Nevada Test Site is a public landscape that has been used for several decades by anti-nuclear activists, environmentalists, and Western Shoshone Indians to express their opposition to nuclear testing and their commitment to personal and spiritual beliefs. Archaeological research at this peace camp reveals rich symbolism, a surprising complexity of features, and evidence of the multi-cultural nature of the intermittent occupations.

**Beck, Lane (Arizona State Museum)**

[82] *The Contexts of Bioarchaeology*

When Buikstra first proposed the concept of Bioarchaeology in the 1970s she emphasized that there is an enriched potential when osteology and archaeology are melded together. Bioarchaeology thus delves below the site to demonstrate the enhanced information that can be obtained when the specific context of the burial and the biology of the individual are merged. In

the quarter of a century since then, Bioarchaeology has grown to encompass not only specific proveniences but a variety of additional contexts on cultural, political, and scientific levels. It is Buikstra's foundational emphasis on context that has directed this growth.

[211] *Discussant*

**Beck, Robin (Northwestern University)**

[15] *Political Economy and the Routinization of Religious Movements*

Max Weber defined routinization as the process by which a religious movement is institutionalized--its charisma transferred from its original leader(s) to a stable social order. This process is marked by the creation of new rituals and paraphernalia, and as such is financed through the political economy. I suggest that distinct forms of social order may emerge through routinization, depending upon the political economy that finances this process. Specifically, political economies based on surplus production give rise to social orders distinct from economies based on opportunistic surplus procurement. I use two religious movements from Eastern Woodlands prehistory, Hopewell and Mississippian, to illustrate this distinction.

**Becker, Marshall (University of Pennsylvania)**

[235] *Domestic Life at Tikal, Guatemala: Variations in Plaza Plan Reflect Ethnic Differences, but Variations in Size Indicate Heterarchy*

The recognition of distinct patterns in various groups of domestic as well as ritual structures at Tikal has provided a basis for developing effective research strategies for lowland Maya sites. Each separate group arrangement, or "Plaza Plan" (PP), reveals an architectural grammar that enables us to predict how all groups conforming to that plan were used. In cases of domestic PPs, or "houses," a specific plan may reveal the ethnic origins of the occupants. The emergence of distinct group types at the transition to the Classic period reflects the beginnings of complex society, but size variation within each PP indicates a heterarchical rather than a hierarchical structure.

**Becker, Rory (University of Wyoming)**

[222] *Fur Traders, Mormons, Soldiers, and Settlers: An Analysis of Meat Subsistence at Fort Bridger*

Excavations at Fort Bridger have identified four distinct stratigraphic levels, each representing an occupation by different social, ethnic, or religious groups. The patterns of meat subsistence for each of these groups may have varied according to cultural practices, religious beliefs, fluctuating animal populations, technological advancements, and other such contributing factors. This paper provides an analysis of the faunal assemblage from Fort Bridger and assesses these, and other, cultural and environmental factors that conspired to affect the way in which people made decisions about their diet on the American frontier in the 19th century.

**Beebe, Caroline (Indiana University), Pritchard, Genevieve (Indiana University) and Sullivan, Anne Lise (Indiana University)**

[189] *Managing an International Archaeological Field School: The Chau Hiix Model*

Conducting an international field school goes beyond designing and implementing a research agenda. To maximize the utilization of all resources a management model must be implemented before, during and after a field school. Using the Chau Hiix management model this paper explores information and human resource management techniques, challenges of day-to-day operations and limitations of working in remote locations. By approaching a field school as not only a research and learning endeavor, but also as an exercise in people and resource management, one can expect to assure a mutually productive field season for students, professors and local residents.

**Beeker, Charles [52] see Conrad, Geoffrey**

**Begun, Erica (University of Iowa)**

[193] *The Many Faces of West Mexican Figurines: What They Can Tell Us*

The goal of this paper is to expand upon earlier research regarding the definition of a typological sequence for the figurines in the Tarascan and pre-Tarascan region of West Mexico. In addition to presenting a more current understanding of such a typology, it is my goal to offer an interpretation of the figurines as markers, not only of temporal phases, but also of identity. The focus of this part of the paper will be on the pre-Tarascan state period and will examine how such markers of identity can shift with the emergence of a state level society.

**Behrensmeyer, Kay [32]** *see Yellen, John*

**Beisaw, April (Binghamton University)**

[239] *Plague or Promise? Frogs and Toads from New York's Engelbert Site*

Excellent faunal preservation at the Engelbert Site may provide a unique look at the use of frogs and toads by New York's prehistoric cultures. Recovered from a variety of contexts at the site, their MNI count places them second only to deer within an assemblage of over 18,000 specimens. Originally dismissed as natural inclusions, new data now suggests that frogs and toads played both subsistence and ritual roles. Particularly intriguing are two burial vessels that contained a number of charred, near complete anuran remains. A combined ethnographic and taphonomic analysis will reevaluate the role of anurans at this multicomponent site.

**Belcher, William (JPAC-CIL) and Benedix, Derek (JPAC-CIL)**

[18] *Burial Patterns of Korean War Casualties: Social Relationships Between the Living and the Dead*

The position of a body in a burial has long been important in the understanding of the reconstruction of past events, whether this occurred several years ago or in a recent crime scene. Additionally, body position in a burial is often seen as an indicator of the relationship between the decedent and the burial party. Examination of burial practices at two sites associated with the Korean War (1950-1953) sheds light on this relationship and its importance in scene reconstruction. The primary social relationships that will be examined are whether the decedent held friendly or enemy status.

**Belfer-Cohen, Anna (Hebrew University of Jerusalem) and Bar-Yosef, Ofer (Harvard University)**

[197] *The Geography and Chronology of Carinated Core Chaîne Opératoire*

Carinated cores were recognized almost a century ago by Boursillon and Bouyssonie in the French Aurignacian and had been defined as 'rabot' (push-plane). The nodule was first shaped bifacially, followed by the creation of an elongated striking platform from the narrow edge toward the thicker back. A crested bladelet was removed from the narrow front followed by a series of bladelets, sometimes twisted. The bifacial removals along the continuous crest of the narrow cores served as stopper. The same technique was employed during the Upper Paleolithic of the Caucasus as well as the Levant, and therefore cannot serve as a cultural marker of the Aurignacian culture.

**Belfer-Cohen, Anna [7]** *see Goring-Morris, Nigel*

**Bélisle, Véronique [51]** *see Covey, R. Alan*

**Bell, Ellen (Kenyon College), Canuto, Marcello A. (Yale University), Bill, Cassandra (Middle American Research Institution) and Desailly-Chanson, Yann (Yale University)**

[234] *A Late Classic Double-Take: Political Organization in the El Paraíso Valley, Department of Copan, Honduras*

The role of smaller regional centers within the political organization of Classic period (AD 600-900) southeastern Mesoamerica remains understudied. The El Paraíso valley, located between this region's larger political centers, contains two such regional centers, El Paraíso and El Cafetal. Despite being located less than 2 km apart, their architectural style, spatial patterning, and material culture are highly distinct; El Paraíso brokering authority from the Classic Maya center of Copan with El Cafetal reflecting a local power base. Curiously, this "twin-center" scenario appears to be a region-wide pattern that likely results from this area's function as a borderland.

**Bell, Ellen [206]** *see Buikstra, Jane E.*

**Bell, Ellen E. [159]** *see Canuto, Marcello A. [210]* *see Geller, Pamela L.*

**Bell, Lynne [194]** *see Taché, Karine*

**Bell, Matthew (University of Hawaii)**

[50] *Kite Photography of Surface Structures on Rapa Nui (Easter Island)*

Rapa Nui's consistent trade winds, open landscape, and surface features make it an ideal candidate for kite aerial photography. Planimetric digital photographs taken from a kite can be

used to make plan view maps of structures or photo mosaics of extended areas. Kite photography is an expedient way to provide high-resolution images and is both culturally sensitive and non-destructive.

**Bellefemine, Viviana [10]** *see Andrusko, Valerie*

**Bello, Charles [172]** *see Dillian, Carolyn*

**Bellorado, Benjamin (Northern Arizona University)**

[99] *Breaking Down the Models: Reconstructing Prehistoric Subsistence Agriculture in the Durango District of Southwestern Colorado*

A lack of regional site distribution studies and systematic investigations of ecological factors have limited modeling of subsistence agriculture in the prehistoric southwest. My research integrates experimentation with dryland maize agriculture, ethnographic analogy, regional archaeological excavation and survey data, soil and climatic studies to generate comprehensive models. These models investigate relationships of human land-use patterns linking prehistoric agriculture and Basketmaker-III/Pueblo-I sites throughout the Durango district in southwestern Colorado between AD 600-840. My aim is to develop comprehensive models of the influence of ecological factors on prehistoric agriculture and settlement distribution in the region.

**Beltran, Boris [48]** *see Román, Edwin*

**Benavides, Hugo (Fordham University)**

[151] *The Ideology of Empire: The Andean Legacy of Inca Subjection*

As all empires the Incas used an array of ideological discourses to uphold themselves as the rightful heirs to a universal understanding of civilized society. They subjected a vast number of Andean polities throughout South America to their cultural norms and particular religious beliefs. However, this imperial subjection also implicated them in a dangerous game of moral superiority that facilitated their own demise when they came into conflict with the Spanish empire. This paper explores this ambivalent subjection that has been further implicated during four centuries of Andean nation-building and a political construction of a (Hispanicized) Inca past.

**Bender, Susan (Skidmore College)**

[58] *Gender lithics Revisited*

The image of Man the Toolmaker is so deeply engrained in the archaeological imagination that it seems to have successfully resisted a number of convincing claims for a more gender inclusive reconstruction of prehistoric lithic technologies. Using the example of a lithic industry from an Archaic campsite in South Park, Colorado, this paper adds another claim to those that have gone before and explores issues surrounding the widespread acceptance of gender lithics.

**Bendremer, Jeffrey C. (Mohegan Tribe) and Thomas, Elaine L. (Mohegan Tribe)**

[96] *Maize Agriculture in the Colonial Period: A View from Mohegan*

Native subsistence strategies underwent many substantial changes and exhibited remarkable continuity from the late pre-contact period, colonial, reservation and contemporary periods. This paper examines the contribution of "three sisters" agriculture to the overall subsistence system at Mohegan over time. Agricultural techniques, food processing and storage techniques will be described. Finally, the importance of maize is discussed as are issues of culture change and continuity in Mohegan.

**Benedix, Derek [18]** *see Belcher, William*

**Benfer, Jr., Robert A. (University of Missouri - Columbia)**

[207] *Were Constellation Alignments Used to Orient Early Peruvian Monumental Architecture?*

Recent findings of a calendric temple complex dating to 2,100 BC, at the middle Chillón valley site of Buena Vista, Chillón, raise the question as to the importance of astronomical orientations in construction of early platform mounds. Buena Vista alignments from a Mito-style offering chamber and also from the gaze of a personified disk each mark critical dates by solar and Andean constellation events. When corrections are made for longitude, latitude, and declination, other sites such as El Paráiso, Aspero, Las Aldas, and Chupacigarro/Caral show a similar summer solstitial orientation.

[167] *see Ojeda, Bernardino*

**Benitez, Leonardo (University of Pennsylvania)**[163] *The Temporal Framework for a Mythological Pantheon*

This study examines the calendrical nature of the Kalasasaya at Tiwanaku as an ideological tool for the unification of the Lake Titicaca basin. A discussion on calendars, myth, and culture drawing examples from Egypt and Mesoamerica will provide the theoretical model. An outline of other Andean calendars and astronomy will follow, providing the historical framework. Drawing from analogies to the chronologically later Inca calendar, the calendrical implications of the Kalasasaya will be examined under the proposed state-calendar model. The hypothesis is that the construction of Kalasasaya and calendar coincide with the development of a Tiwanaku state and regional ideological system.

**Bennike, Pia (University of Copenhagen)**[128] *Interpretation of Bone Injuries with Examples from Skeletons of Numerous Inhumation Graves from Danish Prehistory Covering 7,000 Years*

Together with archaeological aspects, such as artefacts and burials, the study of human remains is important in our understanding of aggression, accidents and possible treatment of the past, but the interpretation of traces on bones are, however, rather crucial for the final conclusions. A study of prehistoric Danish skulls shows, when compared with pathological bone collections and known cases, that possible differential causes to traces of traumatic injuries such as accidental injuries, post mortem damage and diseases should not be ignored. It clearly helps to illustrate the problems surrounding reliable patterns of aggression.

**Bense, Judy (University of West Florida) [81] Discussant****Bentley, Alex (University of Durham)**[206] *Patterns of Diversity among the First Farmers*

The work that Doug and I have done in measuring strontium isotopes in Neolithic Central Europe has added a new level of detail in what we know about the spread of agriculture into Europe. By studying human mobility directly from the skeletons of the people involved, we found that early Neolithic communities were considerably more diverse than commonly assumed by general models of the forager-farmer transition. The European Neolithic data indicate generally patrilocal marriage customs, and potential mobility-related specializations such as pastoralism vs. cultivation that may have corresponded with family lineages. This research has led to my current studies of the transition to agriculture in Thailand, which shows interesting contrasts with the patterns in Europe.

**Beraldin, Angelo (National Research Council Canada) [62] Discussant****Bérard, Benoit (Université des Antilles et de la Guyane)**[16] *Lithic Technology, One of the Ways to Complexity for Caribbean Archaeology*

Lithic technology studies have demonstrated for more than five decades in various contexts their aptitude to identify cultural traditions. Thus, they are actually one of the major informants for the understanding of the European Paleolithic. Caribbean lithic technology has been lately introduced. The actual development of the analyses will contribute to the introduction of Caribbean archaeology in a time of complexity after a few decades of general framework building. We will try to show here the interest of lithic technology by the comparative analyses of huacan and early cedrosan saladoid collections from Martinique and Guadeloupe.

**Berelov, Ilya (ASU School of Human Evolution & Social Change), Falconer, Steven (ASU School of Human Evolution & Social Change), Fall, Patricia (ASU Department of Geography) and Soto, M (Arizona State University)**[232] *Zahrat adh-Dhra' 1: An Example of Rural Diversity in the South Levantine Middle Bronze Age*

The Middle Bronze Age witnessed a peak in town life in the southern Levant during the early second millennium BC. But as our knowledge of non-urban life develops new examples of communities, highly diverse and problematic in interpretation, occasionally force us to revisit our explanatory models. Zahrat adh-Dhra' 1, located near the shores of the Dead Sea in Jordan, illuminates an unexpected rural component of this complex society. The site's unusual material repertoire exemplifies the great cultural diversity of early complex societies, and provides interpretative challenges to accommodate similar communities within our current models.

**Berg, Caryn (University of Denver)**[226] *Strangers No More: Method AND Theory in Flaked Stone Studies*

Flaked stone artifacts have been ubiquitous in the archaeological record beginning with the earliest human sites. Therefore, studies devoted to the analysis and interpretation of flaked stone are central to understanding human behavior. The interpretation of flaked stone assemblages, however, is often limited in scope, focusing on the development of techniques and their application to research questions in limited geographic areas. While flaked stone studies certainly apply theory inherent in the discussion of human behavior, they have not focused on integrating their studies with larger theoretical matters. This paper explores the history of flaked stone analysis and interpretation and argues that it is crucial to apply explicitly theoretical constructs to flaked stone analyses to achieve a greater understanding of the human past.

[11] *Discussant*

**Bergeron, Sue [101]** *see Harris, Trevor; [101] see Rouse, Jesse*

**Bergeron, Susan (West Virginia University), Harris, Trevor (West Virginia University) and Rouse, L. Jesse (West Virginia University)**

[101] *GIS and Historical Landscape Reconstruction*

One of the most difficult tasks in studying landscape archaeology and past cultural landscapes is the problem of synthesizing, integrating, and mapping information obtained from disparate sources. The widespread availability of GIS has spurred the development of 2D digital landscape reconstructions of historical cultural landscapes. This presentation explores the use of Virtual 2.5D GIS in generating and contextualizing digital simulations of historical landscapes as an aid in the analysis and interpretation of past cultural landscapes.

**Bergin, Kathleen (Viejo California Associates)**[36] *Cultural Adaptations at the Talega Site: A Window into Southern California Prehistory from Earliest Settlement into Late Prehistoric Times*

Recent excavations at the Talega site recovered dense cultural remains from this deeply-stratified site located in San Clemente, California. AMS dating minimally brackets the recovery sample as representing the approximate 14,000 cal BC–cal AD 1350 timeframe. The results of initial analysis of cultural components are presented with a focus on lithic and subsistence traditions and change. Emphasis is placed on: faunal components; plant and animal residues associated with specific chipped and ground stone tool types; and analyses of the material assemblages with attention on the overall proportions of tool types in each component and functional analyses based on use attrition.

**Bergstrom, Velicia (USDA Forest Service, Kisatchie National Forest), Ippolito, John (USDA Forest Service, National Forests and Grasslands Texas) and Schneider, Kent (USDA Forest Service, Southern Region)**

[225] *Technology Transfer, Tribal Relations, and the Sangro Valley Project*

In 1997 the Southern Region of the Forest Service began providing technical application and assistance in the fields of Global Positioning Systems (GPS), Database Systems, and Ground Penetrating Radar (GPR). In 2001 we hosted the first ever GPR Workshop and have modified it to include GPS and mobile computing training on an annual basis. We also began sharing similar assistance through our Heritage Excursion Sangro Valley Project (SVP) on Monte Pallano in the Abruzzo Region of Italy. We have worked alongside tribal members and SVP participants collecting GPR data and using a Mobile computing kit to collect GPS data. This presentation will discuss the intricacies of these partnerships, working with data, an exhibition of data results and how you can become involved.

**Bergstrom, Velicia [22]** *see Ippolito, John*

**Berman, Mary Jane (Miami University (Ohio)) [244]** *Discussant*

**Berman, Mary Jane (Miami University (Ohio)) and Hess, Virginia (Miami University)**

[244] *Palmetto Ware: Where Art Thou?*

Charles Hoffman was the first archaeologist to systematically excavate and report on a Lucayan settlement, the Palmetto Grove site, located on San Salvador, Commonwealth of the Bahamas. On his last trip to the Bahamas, Hoffman visited the Deadman's Reef site, Grand Bahama. Both sites are roughly contemporaneous, dating to the fifteenth century. Hoffman described the ceramic assemblage from the Palmetto Grove site, which he named Palmetto ware, while the

authors studied the ceramics from the Deadman's Reef site. We compare the two assemblages, highlighting their technological and stylistic dissimilarities, which we attribute to regional differences in economics and political affiliations.

**Bermann, Marc (University of Pittsburgh) [212] *Discussant***

**Bernabeu, Joan [199] *see Miller, Alexandra***

**Bernaldo de Quiros, Federico (Universidad de Leon), Maillo, Jose Manuel and Sanchez, Granada**

[98] *When Neanderthals Meet the Bladelets: The Bladelet Production in Late Mousterian at Cantabrian Spain*

Bladelet production is often used to distinguish Neandertals from modern humans suggesting the latter's cognitive superiority. However, in clear late Mousterian contexts at El Castillo and Cueva Morin, we have a complete "Chaîne Opératoire" sequence of bladelet production based on a unipolar prismatic core. Some of these bladelets were retouched in a fashion similar to Aurignacian Dufour bladelets. Is bladelet production not in fact a discriminating trait related to cognitive capacity or did Neanderthals possess the same cognitive abilities as modern humans? We will address this question as well as apprenticeship in the Paleolithic.

**Bernardini, Wesley (University of Redlands)**

[205] *Units of Cultural Transmission in the Development of Southwestern Identity*

Archaeologists have recently begun to reengage with indigenous communities in an attempt to merge empirical and traditional forms of knowledge. Hindering this dialogue is a lack of mutually intelligible units of cultural transmission. Clans, for example, are found in both archaeological writing and traditional knowledge, yet there is little agreement on the origin or operation of this social unit. Here, I attempt to describe units of cultural transmission that both archaeologists and Native Americans can use to explore processes of migration, aggregation, and the ethnogenesis of post-contact tribal identities.

**Bernatchez, Jocelyn (Arizona State University), Marean, Curtis (Arizona State University, Mossel Bay Archaeology Project) and Nilssen, Peter (Mossel Bay Archaeology Project (MAP))**

[40] *Investigating Site Taphonomy using Artifact Orientation at Cave 13B, Mossel Bay South Africa*

An understanding of site taphonomy is crucial to artifact interpretation. Numerous geological and hominin activities have the potential to move artifacts after deposition and distort behavioral information. Taphonomy at Cave 13B in Mossel Bay, South Africa is investigated here using artifact orientation data collected during excavation. Two angle measurements (strike and dip) were taken for all artifacts with a distinct long axis. Using these measurements it is possible to distinguish between layers and areas of the site which are minimally disturbed and those which have been reworked to varying degrees.

**Bernbeck, Reinhard (Binghamton University)**

[13] *The Development of Alienated Commensality*

Commensality has recently been interpreted as a locus of political decision making and the construction of communal ties. In this paper, I argue that commensality can, dependent on its location, also be a promoter of alienation. I discuss the case of Uruk Mesopotamia, where the development of a public sphere coincides not only with alienation in work, but also with a radical break in patterns of commensality. The result of these changes is the "quotidianization" of the extraordinary which gives rise to new collective subjectivities.

**Berney, Christine [140] *see Ohnerson, Michael***

**Bernier, Hélène (University of Maryland)**

[212] *Urban Households and Craft Production at Moche*

Excavations under way at Moche constantly broaden the archaeological data set concerning urban domestic architecture. This presentation deals with households and residential compounds, focusing on the aspect of craft production. Specialized workshops were integrated into many houses at Moche. In these houses also lived families depending on a variety of objects crafted in specialized contexts. The study of urban workshops and the examination of domestic consumption patterns aims for a better understanding of Moche urban households, of the functions they held into domestic and political economies, and of the role their members had into a wider social structure.

**Berrey, C. Adam (University of Pittsburgh) and Sydoriak Allen, Kathleen M. (University of Pittsburgh)**

[100] *Debitage Analysis and the Organization of Lithic Technology: A Case Study at a Cayuga Iroquois Site*

This paper presents the results of a multivariate analysis ofdebitage recovered from Parker Farm, a late prehistoric habitation of the Cayuga Iroquois in south-central New York. Both aggregate and individual analytical techniques were utilized on the sample assemblage and combined with recent statistical approaches in debitage analysis that focus on the determination of specific reduction types (such as core reduction, biface production, and uniface production). These methods are evaluated and employed so as to identify the full range of lithic reduction activities that occurred at the site, leading to our understanding of its place within the regional settlement configuration.

**Berryman, Carrie Anne (Vanderbilt University), Tomczak, Paula, Blom, Deborah E. (University of Vermont) and Tykot, Robert H. (University of South Florida)**

[10] *Paleodiet and the Tiwanaku State: A Bioarchaeological Assessment of Exchange Networks and State Formation Processes*

Between 500-1100 AD, the Tiwanaku culture of the southern Lake Titicaca Basin developed into one of the first state level societies in the New World. Models suggested for the basis of Tiwanaku political authority have ranged from direct colonial control of agricultural production and redistribution to indirect trade, allowing local centers to maintain some autonomy. Identifying the distribution of resources obtained through trade and/or local production is central to understanding the processes giving rise to the state. This paper discusses insights gained through study of consumption patterns provided by recent bioarchaeological research comparing dental and stable isotopic indicators of diet.

**Bertrando, Ethan (California Army National Guard)**

[97] *CA ARNG, GIS, LCTA, INRMP, ICRMP and OFT: Reconstructing Prehistoric Behavior with 21st Century Military Data*

Data acquired from California Army National Guard land stewardship programs at Camp Roberts include biological and geological information at a degree of resolution rarely encountered elsewhere. Virtual reconstruction of habitats and plant and animal distributions provides an opportunity to test theories used in archaeology, such as Optimal Foraging Theory. The archaeological eligibility determination program at Camp Roberts serves as a comparative dataset to evaluate prehistoric behavior associated with such activities as big game hunting in light of the modern data.

**Betts, Colin (Luther College) and Ambrose, Stanley (University of Illinois at Urbana-Champaign)**

[132] *Evaluating Oneota Bison Hunting through Stable Isotope Analysis*

Long distance bison hunting figures prominently in the reconstruction of La Crosse region Oneota cultural practices. The archaeological evidence previously employed to address this topic could have resulted either from hunting or trade. Human bone collagen isotopic data from La Crosse region contexts indicate C4 plants (maize) and/or C4 feeding animals in Oneota diets. Isotopic analysis of bison elements from northwest and northeast Iowa show that bison ate substantial amounts of C4 grasses and could account, in part, for human 13C enrichment. Comparison with bison-dependent Plains populations provides clues to the extent of bison consumption.

**Bevan, Bruce [207] see Douglas, John**

**Bever, Michael (University of Texas at Austin)**

[72] *Making the Most of Paleoindian Point Surveys: A Clovis Example from Texas*

Fluted point surveys are popular in Paleoindian studies. Oftentimes, however, presentation of survey data is purely descriptive, with little reference to relevant research questions. Recently, ideas about Clovis and its place in the peopling of the New World have changed dramatically, prompting new research questions and a fresh look at the Clovis record. This paper explores the potential of linking point surveys to research issues, and reports on a Clovis survey from Texas with over 530 points. Combined with location information for nearly 100 Clovis sites, the database provides a robust tool for investigating raw material usage, technology and land use.



**Bey, George (Millsaps College) and Ringle, William (Davidson College)**

[221] *The Construction and Use of the "Other" at Chichen Itza and Tula* Recent research considers Tula and Chichen Itza's relationship as more nuanced and multi-directional than previously thought. As a result new ideas have emerged to interpret the nature of this exchange. An important aspect to consider in these discussions is how each city's inhabitants saw and used the concept of the "other" or "foreignness." Interaction with the "other" led both cities to manipulate ideas of foreignness through iconography, architecture, ceramics and other archaeological data. An exploration of this idea provides insights into similarities and differences between these two Tollans, their relationship to the broader landscape they occupied and the utility of this concept in the study of complex societies.

**Bey, George [177]** see Gallareta Negrón, Tomás; see May Ciau, Rossana; **[49]** see Ringle, William

**Beyer, Lisa (University of South Florida) and Tykot, Robert (University of South Florida)**

[138] *The Prehistoric Sources of Obsidian on the Island of Lipari, Italy: Preliminary Results Using LAICPMS*

Our preliminary results of LAICPMS analysis performed on obsidian derived from in situ prehistorically available obsidian flows on the island of Lipari were studied in order to determine which of these flows were likely utilized by people during the Neolithic period. Our results seem to indicate that both Gabelotto Gorge and Canneto Dentro volcanic vents produced high quality obsidian that was exploited during the Neolithic and that both of these sources of obsidian formed an integral part of a long-distance coastal trade network.

**Bezerra de Almeida, Marcia (Universidade Católica de Goiás)**

[134] *Where Did I Go Wrong?: Discussing the Grammar of Archaeology Teaching in Brazil*

In this paper I examine the issue of archaeology teaching in Brazil from the standpoint of Roberto DaMatta's the relational perspective and his categories of "house" and "street," considering that there is an apparent contradiction between what is said in a classroom and what we do outside it. This applies to both subjects of the educational practice: professors and students.

**Bicho, Nuno (Universidade do Algarve)**

[199] *On the Edge: Early Holocene Adaptations in Southwestern Iberia*

Very little is known from the final Upper Paleolithic west of Gibraltar and south of the Tagus Valley. Contrasting to this fact, data from Boreal and Atlantic times are fairly common and suggest highly diverse cultural, economic and technological systems. Thus, there is an important hiatus for the Tardiglacial phase of human occupation in southwestern Iberia. This paper will focus on two main aspects of the early Holocene in Iberia: explanatory models for the hiatus, and the settlement and subsistence dynamics during the Mesolithic and early Neolithic of Southwestern Portugal.

**Biehl, Peter F. (University of Cambridge)**

[15] *Enclosing Places: A Contextual Approach to Ritual in Neolithic Europe*

In this paper I will re-evaluate theories and methodologies applied to the archaeology of ritual and religion stressing the symbolic meaningfulness of material culture, place and landscape. In a case study - the phenomenon of Neolithic enclosures - I will use a contextual approach to highlight that ritual practices function at both a community and at an individual level, and as social and communicative acts. I will also stress that ritual practice ought to be contextualised with the material culture and the place associated with it in order to better understand and theorise its complex meaning in prehistoric religious life.

**[55]** *Discussant*

**Biffano, Gloria [231]** see Brizuela, Alvaro

**Biittner, Katie (University of Alberta)**

[203] *Acritarchs & Palynomorphs: A Different Approach to Chert Artifact Sourcing*

Numerous techniques and methods have been developed for raw material sourcing. Widely utilized in biostratigraphy and paleoenvironmental reconstruction, palynological analysis is a promising technique for chert artifact sourcing. Specifically, the examination of acritarchs, an artificial grouping of organic walled microfossils, allows for the differentiation of members within chert formations; therefore greater precision in determining provenance. Results from the analysis of samples from the Bark Site, southern Ontario, illustrates that this increased accuracy

in sourcing, when combined with technological analysis, permits a greater understanding of raw material availability, procurement and utilization.

**Bill, Cassandra [234]** *see Bell, Ellen; [159] see Canuto, Marcello A.*

**Billeck, William (Smithsonian) and Dussubieux, Laure (The Field Museum)**

[105] *Laser Ablation - Induced Coupled Plasma - Mass Spectrometry of 17th and 18th Century Turquoise-Colored Glass Beads from the Plains*

Turquoise-colored glass trade beads from the Tobias (13RC8), Hayes (13RC13), Sully (39SL4) and Leavitt (39ST215) sites from Kansas and South Dakota are compared using Laser Ablation - Induced Coupled Plasma - Mass Spectrometry. The glass beads are high sodium and high calcium and equate in composition with beads that date to within or after Period III (AD 1620-1650) from Canada analyzed with NAA by Hancock. Trace elements of antimony, zinc, arsenic, cobalt and tin appear to be chronologically sensitive for distinguishing beads within sites that date in the seventeenth and early eighteenth centuries.

**Billman, Brian (UNC-Chapel Hill), Ringberg, Jennifer (UNC-Chapel Hill) and Kenworthy, James (UNC-Chapel Hill)**

[212] *Reconstructing Culle Ethnicity from the Discarded Fragments of Daily Life: Household Archaeology at Cerro León in the Moche Valley*

From approximately AD 1-200 Cerro León, a hilltop town in the middle Moche Valley, was occupied by immigrants from the adjacent highlands. Occupants of the settlement were probably the ancestors of the Culle-speaking people of the northern highlands mentioned in ethnohistoric documents. In this paper we examine the challenges of reconstructing Culle ethnic identity. Analysis of the arrangement of domestic space, manufacture and use of domestic pottery, trash disposal patterns, and rituals practices reveals that the Culle residents of Cerro León were ethnically distinct from contemporary coastal people in the Moche Valley.

**Billo, Evelyn (Rupestrian Cyberservices), Mark, Robert (Rupestrian Cyberservices) and Loendorf, Lawrence (New Mexico State University)**

[165] *Canyon del Muerto Rock Art Assessment Project*

Canyon de Chelly National Monument is possibly the most intensively painted network of canyons with habitation sites in the USA. Canyon del Muerto and its side canyons were completely surveyed in the 1990's when over 300 rock art sites were identified. Results of an intensive photographic recording of a select sample of these sites that emphasized lower canyon locations will be discussed. Images from Basketmaker, Ancestral Puebloan, and Navajo will be shown along with preliminary analysis of distribution of headdress styles and also radiocarbon dates from mud lines over paintings.

**Billo, Evelyn [196]** *see Mark, Robert*

**Binford, Lewis (University of New Mexico & Southern Methodist University)**

[137] *Investigating Cause of Variability in Beliefs about Death among Hunter-Gatherers*

This research investigates variability in beliefs about death, behavior and mortuary practices among hunter-gatherers and addresses questions about the locus of the cause of variability in the cultural systems under investigation. Methodological focus is on the use of prior knowledge and the diagnosis of patterning in data on the organization of integrated cultural subsystems. Expectations are developed for patterning in archaeological sequences. Archaeological implications of the results of this research are explored in a few specific regional contexts.

**Binning, Jeanne Day (Caltrans)**

[138] *Major Core Forms of the Southwestern Great Basin and Their Diagnostic Debitage*

Throughout the Holocene the major core form used by peoples of the southwestern Great Basin was the percussion biface. Other core forms were also used in certain areas and under certain circumstances. At least three different core forms or percussion reduction strategies are depicted in the poster. Each core form produces characteristicdebitage that is distinct from that produced by the other core forms. The distinguishing characteristics of the resultingdebitage of each form are described. In the absence of the core,debitage traits reveal which reduction approach/core form was used.

**Bird, Doug (Stanford University) and Bliege Bird, Rebecca (Stanford University)**

[195] *The Cost of Cooperation: Women's Hunting in Australia's Western Desert*

Cooperative hunting and conspicuous generosity are commonly assumed to be a man's

domain. However, among Mardu aborigines, women cooperatively hunt small animals and share widely. This cooperation does not appear to be mutualistic. Two hunters do no better than one. Only poorer hunters do better by cooperating. Better hunters do worse in groups, but most cooperate more than 70% of the time. Why then do good hunters cooperate? We evaluate a number of alternative explanations, including the possibility that better hunters are engaged in conspicuous generosity, a form of costly signaling.

**Bird, Douglas [83]** *see Bird, Rebecca*

**Bird, Rebecca (Stanford University) and Bird, Douglas (Stanford University)**

[83] *Children's Foraging Strategies and the Archaeology of Human Juvenility*

Among primates, humans have a uniquely exaggerated and costly juvenile period. In this paper we use recent developments in life history theory to define a range of hypotheses to account for this uniquely human long period of juvenility. We use data on children's foraging decisions among the Martu, an Australian Aboriginal population whose children are especially active hunters, to evaluate the hypotheses. We conclude with a discussion of some broad implications that such a "child's perspective" has on our archaeological interpretations.

**Bishop, Laura [17]** *see Plummer, Thomas; [17]* *see Braun, David*

**Bishop, Ronald (Smithsonian Institution) [52]** *Discussant*

**Biskowski, Martin [236]** *see Watson, Karen*

**Bisson, Michael (McGill University), Nowell, April (University of Victoria), Cordova, Carlos (Oklahoma State) and Kalchgruber, Regina (Oklahoma State)**

[162] *Middle Paleolithic Survey of the Wadi Zarka Ma'in, Jordan*

A survey of the plateau margin of the Wadi Zarka Ma'in, overlooking the Dead Sea Rift revealed numerous open air Middle Paleolithic sites and find spots. The nature of these sites, the relationship of their technologies to other Middle Paleolithic sites in the Levant and their possible chronology are described. Their relationship to flint sources and other resources, and their potential for future research are discussed. Taphonomic reasons may explain why inhabited caves in this area have not preserved intact deposits. One stratified open air site yielded OSL samples.

**Bisson, Michael [162]** *see Blackwell, Bonnie*

**Blacker, Juan Carlos (Binghamton University) and Cook, Anita (The Catholic University of America)**

[212] *Wari Wasi: Defining Conchopata Houses*

Despite numerous studies on Andean domestic spaces, Middle Horizon (AD 550-1000) Wari houses are rarely mentioned in the literature. Evidence at Conchopata shows a strong correlation between domestic space, house shrines and mortuary contexts, particularly in association with women, infants and children. These same "domestic" activity areas are surrounded by the remains of specialty craft production and possible elite residences, further confusing the true function of these spaces. How did Conchopata houses work, who inhabited them and what was their association to the rest of the site? By looking at construction details, room associations, and specific mortuary contexts, we hope to redress these questions.

**Blackmore, Chelsea (University of California, Riverside)**

[117] *Commoner Ritual and Socio-Political Life: Investigations at the Northeast Group, Chan, Belize*

Investigations at a Late Classic neighborhood at the site of Chan, Belize examine the process of diversification and difference within a commoner community. Although archaeologists speak confidently of commoners as laborers and producers, we usually ignore them as socially and economically diverse individuals. Excavations over the last two years have identified considerable diversity between households, suggesting that neighborhood occupants shaped social status and identity through the control of feasting and farming ceremonies. The ability to actively manipulate their status forces archaeologists to consider how commoner activities, no matter how "mundane", may have impacted wider social, political, and economic networks.

**Blackwell, B.A.B. [63]** *see Blickstein, J.I.B.*

**Blackwell, Bonnie (Williams College), Montoya, A. (RFK Research Institute), Bisson, Michael (McGill University), Blickstein, J.I.B. (RFK Research Institute) and Skinner, A.R. (Williams College)**

[162] *ESR Dating Deposits in the Neanderthal Layers at La Ferrassie, Dordogne, France*  
At La Ferrassie, the 1902-1923 excavations found a deposit described as a cemetery containing seven Neanderthals, including an adult, two children and four infants/neonates, associated with many Ferrassie Mousterian artifacts and herbivores. Later, Delporte discovered another adult in the same bed. Because the site was excavated before the advent of modern dating methods, the age for the skeletons remains controversial. One tooth excavated from the layer that yielded these skeletons has been analyzed by standard and isochron ESR. Due to relatively low U concentrations in the tooth, the U uptake model does not cause any substantial uncertainty in the ages.

**Blades, Brooke (New York University)**

[133] *Retouch at the Interface between Raw Materials and Technological Organization*  
The interpretation of structures of technological organization depends upon the identification of the sequential products of reduction technology and the utilization of those various products. Use wear analyses have emphasized the importance of expediency and that utilization is a broader concept than is implied by the presence of retouch. The influence of continual and repeated retouch on modern perceptions of tool typologies is increasingly recognized. The presence of retouch and the varying intensities of that retouch do provide a critical means of identifying realities regarding specific lithic raw materials and prehistoric landscapes, even if structures of social organization inferred from these technological and geographic realities are less clear.

**Blaisdell-Sloan, Kira (UC Berkeley)**

[122] *Agent-Centered Perspectives and the Challenges of Long Term Occupation: A Case Study from the Honduras*

Issues of agency, particularly of indigenous agency, are of increasing interest in Latin America. Yet, the documentary and archaeological resources available to determine what kinds of agency indigenous people had vary tremendously over time. This presents a challenge for those interested in creating coherent long term narratives using agent-centered perspectives. Using the Postclassic through Late Colonial period Honduran town of Ticamaya as a case study, this paper will examine evolving kinds of data available in Colonial Latin America, and how we can use this data to come to understand the changing nature of indigenous agency throughout the colonial period.

**Blake, Karry L. [9] see Jones, John G.**

**Blakely, Sandra (Emory University)**

[15] *Samothracia ferrea: Iron Rings, Magnetism, and the Archaeology of Secrecy*  
Secrecy defined the Greek mystery cults. Textual and archaeological evidence for the mysteries of the Great Gods at Samothrace suggest a sophisticated range of mechanisms for ensuring this discretion, including a physical token of the mysteries: magnetized iron rings. Rings found at the site provide, at one level, a rare match between textual and archaeological evidence. Read in light of anthropologies of secrecy, they cast light on the character of the epigraphical and the mythological record, and innovations in the mechanisms of the cult, that responded to the cult's increasing importance as a showcase for the Macedonian royal house.

**Blakeslee, Donald (Wichita State University) and Weeks, Brent (Wichita State University)**

[209] *High Tech; Back County: A Low-cost Approach to Using GPS GIS in Demanding Conditions*

We report here the use of GIS software on hand-held computers in a back country setting (Yellowstone National Park). We have been experimenting with the use of iPAQs, GPS antennas and ArcPad software with pull-down menus of our own design. The menus allow rapid recording (ca 8 seconds) of typical finds and even more rapid registration of field photos and landscape features. Bluetooth and wi-fi communication allow for data redundancy and for making individual survey assignments. We report on our experiences and offer suggestions for how federal archaeologists might use this equipment to ensure survey quality in CRM contracts.

**Blankenship, Sarah (University of Tennessee) and Simek, Jan (University of Tennessee)**

[213] *Mississippian Paint Technology: Geochemical Analysis of Prehistoric Pigments from Painted Bluff, Alabama*

Pigment samples from an open-air pictograph site in northern Alabama were studied by means of X-ray diffraction (XRD), scanning electron microscopy (SEM), and energy dispersive X-ray spectroscopy (EDS). Iron oxides/hydroxides were determined to be the primary color constituents in the prehistoric paint recipe. In addition, X-ray diffraction analysis of pigments revealed the presence of gypsum. Gypsum was not identified as a precipitate in limestone control samples taken adjacent to the pictographs; therefore it was added to the paint mixture prior to its application.

**Blanton, Richard (Purdue University)**

[240] *Cross-Cultural Comparison of Pre-Modern States and Its Implications for the Study of State Origins*

Did early states develop because they provided beneficial services, or were they primarily systems of political domination? These questions informed neoevolutionist theories of early state formation, but have not been subject to systematic evaluation. Collective action theory transcends the benefits versus power argument by specifying the conditions under which states will develop either as systems of domination or as providers of public goods based on an agreement between rulers and ruled. A cross-cultural comparative study of 30 pre-modern states allows me to evaluate the collective action hypotheses and to evaluate possible relevance to pristine state formation.

**Bleed, Peter (University of Nebraska - Lincoln)**

[197] *Sequences Have Length and Breadth and Both Matter!*

Sequential analysis lets archeologists study the production and use of stone tools and the operation of other past activities. Sequential models have been developed in diverse theoretical schools suggesting that highly patterned sequential activities are an essential element of technology. Most archeological sequence models emphasize their length. By defining the series of steps that make up an activity, archeologists have defined cultural patterns and addressed how tasks were organized and executed. Using sequential models to address the behavioral diversity - or "breadth" - of technological activities allows archeologists to address evolutionary issues and ideas developed by cognitive psychologists.

[135] *Discussant*; [247] *see Carlson-Drexler, Carl*

**Blevins, John Mark [48] *see Dunning, Nicholas P.*****Blick, Jeffrey (Georgia College & State University)**

[244] *Recent Investigations at Minnis-Ward and North Storr's Lake, San Salvador, Bahamas: Implications for Lucayan Subsistence and Resource Exploitation Patterns*

Archaeological excavations at the Minnis-Ward and North Storr's Lake sites on San Salvador island have recovered large quantities of invertebrate and vertebrate faunal remains. While analysis of these materials is still in progress, preliminary results show heavy reliance on near-shore, especially reef-dwelling, species. Faunal identifications allow specification of habitats exploited by the Lucayans and also allow for interpretations of Lucayan subsistence and resource capture. Preliminary data suggest overexploitation of some of the terrestrial and marine resources in late prehistoric times (ca. AD 1000-1400).

**Blick, Susan K. (Georgia Cancer Specialist)**

[244] *The Life and Times of Charlie Hoffman*

Charles A. Hoffman died of cancer July 1, 2005. The life and times of Charlie Hoffman will be discussed.

**Blickstein, J.I.B. (RFK Research Institute), Khan, H.S. (RFK Research Institute),  
Blackwell, B.A.B. (Chemistry Department, Williams College), Skinner, A.R.  
(Chemistry Department, Williams College), Chauhan, P.R. (Stone Age Institute,  
Indiana University)**

[63] *ESR Dating at Pleistocene Hominid Sites in the Central Narmada Valley, Madhya Pradesh, Central India*

The Pleistocene boulder conglomerate (BC) at Hathnora and adjacent localities has yielded Lower through Upper Paleolithic assemblages and several hominid remains variously ascribed to archaic *Homo sapiens* or *Homo erectus*. The BC fauna indicates temporal mixing. Previous

attempts to absolutely date the BC have not proven successful. Herbivore molars recently collected from the BC contained high dentinal and enamel U concentrations, suggesting strongly evaporative conditions during fossilization. Variation in their accumulated doses indicate that isochron analysis can assess U remobilization. Standard ESR can date the faunal assemblages in the BC and assess the amount of reworked fauna present.

**Blickstein, J.I.B. [162]** *see Blackwell, Bonnie*

**Bliege Bird, Rebecca [195]** *see Bird, Doug*

**Blitz, John (University of Alabama)**

[205] *Mounds of Emergence, Mounds of Destination*

Origin stories indigenous to the American Southeast recount how ancestral groups emerged from the earth or its representation, an earthen mound, and/or journeyed to a homeland to build a mound. Emergence-migration narratives endorse group origins, rank, separation, and territorial claims. These themes illuminate an archaeological sequence of mound abandonment and subsequent reuse in Alabama and Georgia. The timing of mound reuse in this region correlates with major cultural transformations punctuated by discontinuities in ceramic traditions. Abandoned mounds were dormant power objects appropriated to validate new claims. Mound reclamation inaugurated, challenged or transformed mythic histories.

**Blom, Deborah E. (University of Vermont) and Stevens-Tuttle, Debbie (University of Vermont)**

[47] *Prehispanic Andean State Formation, Residence Patterns, and Health during the Middle Horizon*

Nothing is more central to theories of prehispanic Andean state formation than relationships between ecologically-distinct regions. Various models proposed range from direct colonization to indirect trade, depending on socioeconomic factors unique to each case. Analyses of human remains also indicated that residence in highland, lowland, and coastal regions often differentially affected quality of life. This is especially evident in settlements associated with the South-Central Andean society of Tiwanaku during expansive periods (~AD 500-1100). This paper explores the effect of residence patterns and socioeconomic factors on health in the Titicaca Basin and Moquegua Valley during this time period.

**Blom, Deborah E. [10]** *see Berryman, Carrie Anne; [218]* *see Grasso, Sara*

**Blomster, Jeffrey P. (George Washington University)**

[86] *Agency and Interaction in Early Formative Oaxaca, Mexico: Mixtecs, Zapotecs and Olmecs*  
Interaction between the Gulf Coast Olmec and various regions of Mesoamerica remains debated and poorly understood. In Oaxaca, interaction between the Valley of Oaxaca and San Lorenzo has been characterized by emulation or peer polity models. Neutron activation analysis of Early Formative pottery demonstrates the Olmec exported ceramics to Oaxaca, while receiving few – if any – pots in return, suggesting new models and theoretical perspectives must be applied to understanding the relationships between Oaxacan chiefdoms and the Olmec at San Lorenzo. An agency perspective explores what Mixtec, Zapotec, and Olmec groups may have taken from these interactions and relationships.

**Bloom, Guy [92]** *see Prezzano, Susan*

**Bloxam, Elizabeth (University College of London), Heldal, Tom (Geological Survey of Norway) and Storemyr, Per (Expert Center for Conservation of Monuments and Sites)**

[30] *Late Palaeolithic Origins of a Grinding Stone Industry at Aswan, Egypt*

Silicified sandstone quarries of Gebel Gulab and Gebel Tingar, on the West Bank at Aswan, represent one major source of grinding stones in Egypt. Diagnostic similarities between grinding stones in Roman Period contexts with those from nearby Late Palaeolithic contexts, provide evidence of a stone industry with exceptionally long cultural and historical antecedents. Production reveals high degrees of standardization carried out by skilled practitioners with knowledge of the best stone quality. This evidence has profound implications on the social context of such activities, perhaps linked to skilled groups of practitioners through kinship, where production changed little over several thousand millennia.

**Bloxam, Elizabeth [30]** *see Heldal, Tom; [30]* *see Storemyr, Per*

**Boada, Ana María (University of Pittsburgh)**

[34] *Comparing the Development of Social Complexity of Two Cultural Trajectories from Northern South America*

This paper examines the conditions that favor the emergence of small local communities and eventually a centralized political organization. I will compare two cultural trajectories of the northern Andes to evaluate the importance of two particular forces in the emergence of sociopolitical complexity: warfare and intensification of agriculture. I will focus on how warfare and the organization of labor for agricultural production reflect various kinds of social interaction and how such interactions shape the local village and regional settlement patterns.

**Boesch, Christophe [17]** *see Mercader, Julio*

**Bogaard, Amy (University of Nottingham), Charles, Michael (University of Sheffield), Martin, Louise (University College London), Russell, Nerissa (Cornell University) and Twiss, Katheryn (Stony Brook University)**

[178] *Towards an Integrated Model of Plant and Animal Husbandry at Neolithic Çatalhöyük, Central Anatolia*

Contrasting views exist regarding the integration of early crop agriculture and animal husbandry in the south-west Asian Neolithic. Were crop and livestock husbandry integrated in a form of mixed farming, or were they complementary economies practiced by specialized households, neighborhoods or communities? What would the social and ecological ramifications of these different strategies have been? We outline a methodological strategy for assessing the extent to which the long-term success of the Çatalhöyük settlement (c. 7417100-62/5900 cal. BC) was rooted in the development of an agriculturally integrated household economy, as opposed to specialized cultivator and herder lifeways.

**Bohrson, Wendy [65]** *see Ely, Lisa*

**Bolender, Douglas (Northwestern University)**

[220] *Land Division and Land Intensification in Medieval Iceland*

This paper examines the role of land division and farmstead status on strategies of agricultural intensification. The first Icelanders established a dispersed farming landscape in which each farmstead had its own intensified homefield to support livestock through the winter. Subsequent land division resulted in inequalities among households. Soil deposition in lowland areas and datable volcanic ash layers allow for the reconstruction and comparison of individual farmstead investments at different periods in time. The development of boundary wall systems and geochemistry are used to examine changing patterns of land investment among neighboring farms in the Langholt region of northern Iceland.

**Bond, Jeannette (University of Michigan)**

[231] *Ceramics and Society at Sitio Drago, Panama*

The ceramics of the Bocas del Toro Province in the Republic of Panama have been understudied until recent excavations in the area have brought more ceramic data to light. The previous paucity of data led researchers to believe Bocas del Toro was a cultural backwater. I argue that a greater level of socio-political organization was present at Sitio Drago (AD 800-1200), a pre-Columbian site on Isla Colon in the Bocas del Toro archipelago, based upon the ceramic remains. This paper will examine the wares present at Sitio Drago and a cursory comparison of ceramics from other sites in the region.

**Bond, Tara (Southern Methodist University)**

[33] *An Examination of Preclassic Household Ceramics from Ek Balam and Surrounding Sites*

The Ek Balam Project conducted research at the large Maya polity of Ek Balam and smaller surrounding Maya polities, collecting over 30,000 Middle and Late Preclassic period ceramics from surface collections and excavations from 1989 to 1998. An analysis of the pottery distribution indicates a settlement expansion from the Middle to Late Preclassic at Ek Balam. In addition to presenting evidence for changes in settlement, this paper also defines a typical Preclassic household assemblage in the Ek Balam region by examining the difference in patterning of ceramic type-varieties from residential and non-residential structures.

**Bon-Harper, Sara (Monticello) and Wheeler, Derek (Monticello)**

[245] *The Use of Exterior Domestic Space by Enslaved Field Hands: Plowzone Analysis from Monticello*

Three houses have been identified at Site 8, one of the central quartering locations for enslaved African-American field hands on the Monticello plantation. Plowzone data from around these three dwellings is employed in understanding the use of exterior domestic space on this site, with particular consideration given to refuse disposal and the use of yards for food-processing and other work activities.

**Bonini, Miguel (Puerto Rico SHPO)**

[176] *Section 106 and the Puerto Rican Experience*

The introduction of the National Historic Preservation Act (NHPA) has resulted in a dramatic rise in the amount of archaeological research carried out in Puerto Rico. Despite this increase, its contribution to our current understanding of Caribbean archaeology is less dramatic. A disarticulated government historic preservation program, the weak professional development of archaeologists, and the over reliance on pre existing paradigms undermine the potential contribution of these investigations. This paper will discuss the role of the NHPA in the development of Puerto Rican archaeology and present recommendations for its further growth.

**Bonsall, Clive (University of Edinburgh)**

[55] *Complexity and the Transition to Farming in the Iron Gates*

The post-glacial hunter-gatherers of the Iron Gates are widely regarded as a classic example of a complex foraging society. But just how "complex" were they, and did this hasten or hinder the transition to farming in the region?

**Bonzani, Renée (University of Kentucky/Eastern Kentucky University) and Dillehay, Tom (Vanderbilt University)**

[152] *Maize (Zea mays) Macrobotanical Remains from Araucanian Domestic Sites, Chile: Preliminary Methods to Identify Archaeobotanical Maize Varieties*

Information on the macrobotanical remains of maize (*Zea mays* L.) from Araucanian domestic sites in south—central Chile is presented. These remains date to ca. AD 1450 prior to Spanish contact in the area. The archaeobotanical remains are utilized to address methods concerning the identification of maize varieties from archaeological samples. Such methods include estimated cob row number, location of the site, botanical maize varieties recorded for the country, and ethnobotanical and ethnohistorical sources for the area.

**Booden, Mathijs (Leiden University) and Hoogland, Menno (Leiden University)**

[16] *Tracing Human Mobility in the Lesser Antilles with 87Sr/86Sr: Diagenetic Pitfalls and How to Evade Them*

Sr isotope ratios (87Sr/86Sr) are determined for human remains from Guadeloupe. Sr occurs in both teeth (formed early in life) and bone (representative of later life). Thus, information is obtained on an individual's location during childhood and adult life, in addition to its final burial place. Given the tropical climate, it is critical to ensure that the original isotopic signature is not contaminated or overprinted by a diagenetic (local) signature following burial. Careful selection of sample material and chemical pre-treatment are necessary even for tooth enamel, and special care is taken in the extraction and pre-treatment of bone material.

**Booden, Mathijs [52]** *see Isendoorn, Daan*

**Boomert, Aad [1]** *see Hofman, Corinne L.*

**Boomert, Arie (Leiden University)**

[166] *Hub between the Mainland and the Islands: The Amerindian Cultural Geography of Trinidad*

Due to its geographical situation directly offshore the South American mainland Trinidad formed a central hub in the system of Amerindian exchange and communication that developed in the area encompassing the Orinoco Valley, the Gulf of Paria, the Guiana coastal zone and the southern islands of the Caribbean in Ceramic times. It was Irving Rouse of Yale University who established during excavation projects in 1946 and 1953 that Trinidad's prehistoric cultural sequence closely resembled that of the Lower Orinoco Valley, illustrating the pivotal role of the island in the transmittance of culture from the mainland to the West Indies vice versa.



**Boone, Cristie (University of California, Santa Cruz)**

[80] *Nutritional Values and Life History Strategies: Factors Affecting Fish Species Choice at the Moss Landing Hill Site, Monterey, CA*

In Monterey Bay, CA, people have fished intensively over the last 8500 years, focusing on different species through time. Fish species have differing nutritional value and life history strategies, both of which affect their usefulness as part of the human diet. This poster considers the body composition and life histories, including seasonal timing of their nearshore availability, of several fish species found at the Moss Landing Hill Site (CA-Mnt-234) in Monterey Bay. These data help estimate major factors affecting the species choice evident in the archaeological record.

**Boone, James L. [71]** see *Worman, F. Scott*

**Booser, Anna (Columbia University)**

[233] *Between Imperial Integration and Microhistory: Domestic Contexts in Roman Amheida, Egypt*

This paper explores the integrative phase of empires, a process that continues long after the dramatic acts of conquest and submission have ended. I explore this process on a microscale in order to understand local and non-elite negotiations, responses, and influences. Specifically, I focus on domestic contexts from the Roman city of Amheida (ancient Trimithis) in the Dakhleh Oasis. Amheida has a long occupational history, but it was under Roman rule that it reached its greatest extent (1st century AD-4th century AD). This historical trajectory offers an excellent example of a locality that developed during a period of social, religious, economic, and political change.

**Borejsza, Aleksander (Archaeology Program, University of California, Los Angeles) and de Ángeles Guzmán, Mauro (Instituto Nacional de Antropología e Historia)**

[174] *The Taphonomy of Human Bone at Formative La Laguna*

Excavations at La Laguna yield few complete skeletons in purpose-made graves. Human bone, however, is common in architectural fills, middens, and bell-shaped pits. By considering stratigraphic context, representation of different skeletal segments and signs of bone modification we distinguish between accidental redeposition and mortuary practice. Finds of articulated body parts and cut-marks on bone suggest dismemberment or defleshing of corpses, intentional re-opening of graves, and the selective curation and discard of human remains. In one area of the site, we believe to have identified specialized refuse deposits associated with such practices, next to a burial ground.

**Borejsza, Aleksander [80]** see *Rodríguez López, Isabel*

**Borić, Dušan (University of Cambridge)**

[111] *Body Theory in Archaeology: A Review*

As a context for the symposium, this paper reviews the theorization of the human body in archaeology. The core of it is a resume and appraisal of key works in diverse areas of archaeology (gender and sexuality; art and representation; space, movement and architecture; burial; foodways; dress and adornment; gesture, violence and technology). We also briefly suggest the reasons why an archaeology of the body is central to social archaeology, the working principles of such an archaeology, and some of the theoretical and methodological problems it is likely to encounter.

[111] see *Miracle, Preston*

**Borojevic, Ksenija (Boston University)**

[232] *Plant Remains from the Bronze and Iron Age Megiddo, Israel*

A retrieval of macro plant remains was initiated at the renewed excavations of Megiddo, Israel. Analysis of flotation samples from the 2000 season provided plant material for the analysis. The identified plants represent an expected repertory of plant remains typical for many Near Eastern assemblages. Emmer was the major crop, while bread wheat was present in small quantities. The implementation and amelioration of flotation technique yielded plant material that provided important information about part of human and animal diet, weed infestation of crops, use of different types of fuel, and possible plant funerary offerings at this important site.

**Borrero, Luis A. (CONICET)**[144] *The Lost Evidence: The Extinction of Pleistocene Megamammals in South America*

One of the oldest unsolved questions of South American archaeology concerns the extinction of Pleistocene megamammals. Data produced in South America itself is rarely considered in synthetic papers and books, which sometimes even claim that there is no adequate data. The main point of this presentation is that there is a wealth of both paleontological and archaeological data which may help in the evaluation of the different theories used to interpret that event.

**Borrero, Robert Mucaro (American Museum of Natural History)**[123] *Taíno Lives: Maintaining Traditions and Surviving New Realities*

Mr. Borrero's presentation will share some of the traditional understandings Taíno people hold of their histories, stories, and futures. From his perspective as a grassroots leader, he will discuss the obstacles for Taíno community members who wish to use their ancient ceremonial sites for contemporary ceremonies. As an educator in the museum world, he will share his experiences working to debunk the myth of Taíno extinction. From his perspective as chairperson of a U.N. committee, he will discuss the current international climate that provides a favorable space for the Taíno to continue to grow as they have for time immemorial.

**Boszhardt, Robert (Miss Valley Arch Center) and Carr, Dillon (Michigan State University)**[74] *Silver Mound--Source of Hixton Silicified Sandstone*

The Silver Mound quarry complex in the Upper Mississippi River Valley is key to researching regional lithic procurement strategies. Its unique geological setting enables artifacts manufactured from Hixton Silicified Sandstone to be attributed to a single source, providing resolution for studies examining lithic acquisition, transport, and discard strategies. This poster presents a framework for understanding interrelationships between the condition of curated tools at discard and their spatial proximity to Silver Mound. We then evaluate how strategies of lithic raw material procurement were organized by Paleoindians in the western Great Lakes and Upper Mississippi River Valley.

**Boteler Mock, Shirley (University of Texas, San Antonio) and Harrison-Buck, Eleanor**[103] *Defining the Bennyhoff Ceramic Sphere: A New Look at Changes*

As powers in the Maya Peten waned, important centers such as Chichén Itzá rose to power in northern Yucatan in the Late-Terminal Classic (ca. AD 800-1150). A coastal trade network developed along the Caribbean, whereby northern influence spread to coastal and riverine settlements as far south as Belize. The newly defined Bennyhoff Ceramic Sphere encompasses an influx of northern related ceramics and iconographical and architectural elements. The ceramics represented in this sphere are distinct from the Peten-affiliated sphere ceramics. Recent research and documentation of the ceramics are presented in relation to population dispersals and long-distance interactions during this time.

**Botto, Irma Lia [219] see Cremonte, Maria Beatriz****Boudreaux-Lynn, Jennifer R. [97] see Latham, Mark; [97] see Iruegas, Sergio****Boulanger, Matthew (University of Missouri), Hathaway, Allen (Archaeology Consulting Team, Inc.), Speakman, Robert (University of Missouri) and Glascock, Michael (University of Missouri)**[138] *Examination of the Suitability of Geochemical Analysis in Characterizing Native American Chert Quarries in Vermont*

Native American chert quarries within the State of Vermont represent an important, if not understudied, archaeological resource. Despite the relatively widespread use of geochemistry in archaeology elsewhere, archaeologists in Vermont have been relatively slow to adopt these techniques. A key first step in overcoming this deficiency is to evaluate available techniques and determine which may be the most useful to the archaeologist. New data is presented concerning the efficacy of geochemical analysis in discriminating between known chert quarries and recommendations are made for future research.

**Bouroncle, Jimmy (INC - Arequipa) and Toohey, Jason (University of California Santa Barbara)**[212] *Planned Domestic Space and Social Separation at the Late Cajamarca Community of Yanaorco*

This paper presents the results of recent excavations in the domestic sectors of the LIP

Cajamarca site of Yanaorco. Intrasite spatial analysis and a comparative approach to domestic spaces at the site have led to new insights into processes of social differentiation and stratification in the northern highlands during this period. Integrated analyses of architecture, ceramics, foodways, access to exotic goods, and prevailing winds uncover a patterned domestic use of space at Yanaorco. Community and household spatial patterning is seen as a template for social organization at this late Intermediate Period fortified village.

**Bovy, Kris [6]** *see Kopperl, Robert*

**Bowen, Jonathan (Ohio Historical Society)**

[138] *An Analysis of Kirk Stemmed Points in the Greater Ohio Region*

Kirk Stemmed-related hafted bifaces (6900-6300 ca. BC) are widespread throughout the eastern U.S. in a wide array of temporal and regional variants. This study examines the haft morphologies as well as the various blade maintenance strategies.

**Bowers, Robert (University of South Florida), Tykot, Robert (University of South Florida), Underhill, Anne, Luan, Fengshi and Fang, Hui**

[103] *Phytolith Analysis of Ceramics from Liangchengzhen, Shandong, China*

Previous investigations at the Liangchengzhen site in the eastern Shandong province of China have demonstrated the presence of rice, millet, soybeans, and wheat during the Longshan period. Silicified plant cells, or phytoliths, remain in context and provide an effective means of discerning the presence of these plants. A total of 25 sherds from several pottery types (guan, ding, yan, gui, pen) were analyzed for the presence of plant phytoliths in order to better understand ceramic usage. Results from this study, when integrated with faunal, macrobotanical, and isotope data, provide information on cultural dietary patterns for the Longshan culture.

**Boyd, Brian (University of Wales Lampeter)**

[111] *Bodily Practices and Queer Places*

The reflexive and explicit monitoring of the body, of gesture, of positioning and posture, of dress and appearance is central to queer constructions and understandings of space and place. This paper discusses the practices and perceptions involved in queer sexual geographies, focussing specifically on the ways in which certain types of place are put to queer use through a range of conventionalized body practices. How does a queer sense of place result in the construction of such spaces, and which factors make a place suitable or unsuitable for queer appropriation? The implications for the writing of queer histories/archaeologies are emphasized.

**Boyd, Jennifer (University of New Mexico) and Constan, Connie (University of New Mexico)**

[129] *Variation in Ceramic Assemblages on the Jemez Plateau*

We examine ceramic assemblage variability at fieldhouses across the Jemez Plateau to address spatial and temporal change. Fieldhouses are 1-4 room structures used seasonally by occupants of large pueblos for farming, hunting, and as lookouts. Numbering in the thousands, fieldhouses are the most common site type on the Jemez Plateau. We utilize a large sample of these short-term occupation sites to examine spatial and temporal variability at a fine scale. This analysis focuses on range and frequency of ceramic types at the assemblage level to determine temporal occupation of sites and address population movement and relative population size through time.

**Boyd, Matthew (Lakehead University), Surette, Clarence (Lakehead University) and Nicholson, B.A. (Brandon University)**

[187] *Archaeobotanical Evidence of Prehistoric Maize (*Zea mays*) Consumption at the Northern Edge of the Great Plains*

Analysis of starch granules, phytoliths, and plant macrofossils from archaeological features and carbonized food residue provides important new insight into the extent of prehistoric maize consumption on the North American Great Plains. These data suggest that consumption of maize, and probably other cultigens, was widespread on the eastern Canadian Prairies between approximately AD 1000 to 1600. Domesticated plants may have been grown locally, acquired through trade, or transported into the region following dispersal of family groups from horticultural villages located elsewhere.

**Braadbaart, Freek (Utrecht University) and Wright, Patti (University of Missouri, St. Louis)**

[44] *Reflectance on Sunflower Achenes and Seeds: A New Technique to Estimate the Pre-carbonization Dimensions*

When analyzing sunflower (*Helianthus annuus*) seeds, researchers differentiate between wild and domesticated forms based on lengths and widths. Remains are often carbonized and a single correction factor has been used to compensate for the resulting shrinkage. We describe an alternative procedure based on chemical composition and reflectance. We argue that this is a more precise method to determine mass loss and to reconstruct seed dimensions.

**Bracamonte Ganoza, Florencia, Nystrom, Kenneth (Santa Clara University) and Church, Warren (Columbus State University)**

[10] *Bioarchaeology, Imperialism, and Ethnogenesis in the Inka Province of Chachapoyas, Perú*

Inka imperialism was a dynamic process and imperial strategies varied between provinces. One common aspect, however, was demographic rearrangement of subjugated populations, often combining previously discrete ethnic groups. Ethnohistorical and archaeological evidence suggest that numerous culturally-related yet autonomous societies were subsumed within the Inka province of Chachapoyas. This research examines the consequences of Inka imperialism and the process of Chachapoya ethnogenesis utilizing both biological and archaeological data. The effects of Inka imperialism in Chachapoyas are compared with consequences observed in other Andean regions, as well as contrasted with those described in European models.

**Brackett, Claudia (California State University, Stanislaus) and Lundin, Richard (Carothers Environmental LLC)**

[183] *The Rancho 160 Project: Archaeogeochemical Investigations of a Sedentary Phase Hohokam Site in Central Arizona*

Recent advances in archaeogeochemical investigations of Native American sites in the US Southwest have made it possible to determine the location of field and habitation areas. The Rancho 160 project involved the use of LC-MS and AA soil and plant analysis techniques to examine the relationship of concentrations of phosphate and organic compounds with Sedentary Phase Hohokam resource procurement and habitation sites. New advances in field and laboratory technologies for archaeogeochemistry will also be discussed.

**Bradbury, Andrew (Cultural Resource Analysts Inc.), Carr, Philip (University of South Alabama) and Cooper, D. Randall (Cultural Resource Analysts Inc.)**

[133] *Raw Material Variation and Calculating the Original Mass of Retouched Flakes*

A series of experiments producing retouched flakes using various raw materials and two reduction modes were conducted by two flintknappers. Materials varied considerably in knapping quality and provide a means to explore the relationship between raw material type, resharpening, and tool use-life. A variety of attributes were recorded for each flake produced. Preliminary analysis indicates that raw material type is important for estimating original flake mass, but a tripartite division of quality may be sufficient to account for the variation. No significant differences are evident between the two knappers. Equations used to calculate original flake mass from retouched flakes must be derived with a consideration of raw material.

**Bradbury, Andrew [197] see Carr, Philip**

**Bradford, Ileana (CSULB), Neff, Hector (CSULB) and Plaskey, Bret**

[105] *Laser Ablation ICP-MS for the Chemical Characterization of Glass Beads from the Great Basin Area of Eastern California*

Glass beads have been in California since the first Spanish expeditions in the 18th century and were quickly incorporated into a preexisting shell bead network. The extent and duration of this network produced the patterned variability of glass beads present in the archaeological record. Morphological studies have addressed stylistic and technological patterning; now we need to look at specific glass recipes and their corresponding chemical signatures that are associated with particular factories at particular time periods. In this study we use laser-ablation ICP-MS to chemically characterize a collection of archaeological glass beads from the Great Basin area of eastern California.

**Brady, James (California State University, Los Angeles)**

[29] *Leaving No Stone Unturned: The Identification and Interpretation of Unmodified or Minimally Modified Stone Manuports in Caves*

As cave investigations have become more intensive and archaeologists are more familiar with the cave environment, sets of unmodified or minimally modified stone manuports have come to light. To date these have been inconsistently treated and little interpretation has been attempted. This paper describes a number of such stones recovered from lowland Maya caves, reviews the archaeological literature to show that such objects occur in cache and burial contexts, and finally examines the ethnographic literature to demonstrate that such stones are frequently imbued by modern people in Mesoamerica with a range of social and religious meanings.

[29] see Tucker, Tim; [64] see Delgado, Arnulfo

**Braje, Todd (University of Oregon), Erlandson, Jon (University of Oregon) and Rick, Torben (Southern Methodist University)**

[89] *Fishing in the Long Durée: A Global Perspective on the Antiquity of Fishing*

Although the antiquity and importance of aquatic adaptations have been recognized as central to the development of post-Pleistocene cultural evolution, the focus has centered on the association between maritime adaptations and the, often, late development of political and cultural complexity. A growing body of archaeological evidence suggests, however, that early aquatic adaptations including shellfish gathering, fishing, seafaring, and marine mammal hunting may have played an important role in the expansion of modern humans. We explore the earliest evidence of marine fishing in the archaeological record and discuss the implications of marine resources in human evolution.

**Braje, Todd** [8] see Erlandson, Jon

**Braly, Bobby (University of Tennessee)**

[155] *Non-Ceramic Grave Inclusions From Late Period Sites In Northeast Arkansas*

During the late 1930s the University of Arkansas Museum excavated a large number of human burials at late period (circa AD 1400-1600) archaeological sites in northeast Arkansas. The focus of this paper is the non-ceramic funerary objects placed with the dead. Ten sites including 1471 burials and 287 non-ceramic artifacts were identified. A database of all such artifacts, including digital photographs, was compiled. Based on this data, some observations on intersite and regional variation are offered.

**Branas, Chris (Phillips & Jordan), Collins, Lori (University of South Florida) and Doering, Travis (University of South Florida)**

[42] *3D Laser Scanning and High Definition Survey Techniques: New Directions for Archaeological Investigation, Research and Heritage Management*

Innovative integration of state-of-the-art technologies has proven effective in producing visualizations to assist archaeological research, analysis, and heritage management. The combination of long-and short-range three-dimensional scanners, global positioning systems, and conventional surveying methods in conjunction with sophisticated software applications allow researchers to perceive their data with unprecedented clarity and versatility. Focusing on examples ranging from large-scale survey and topographic mapping, to fragmentary artifact and glyphic analysis, along with heritage management and conservation assessments, the authors demonstrate how their developed techniques are currently being used on a variety of projects in North America and Mesoamerica.

**Brandt, Steven A. (University of Florida)**

[32] *Where Is Everyone? African Late Pleistocene Refugia and the Origin of Modern Human Behavior*

Traditional models of modern human dispersals out of Africa have argued for a "Northern Dispersal Route" through NE Africa, Sinai and the Levant, while others have focused upon a "Southern Dispersal Route" into Arabia. Most scholars have concerned themselves with determining "when" such dispersals occurred and in what direction they went. This paper considers "why" AMHS migrated, and from "where" by examining the potential roles environmental refugia may have played in behaviorally preparing AMHS for the Long March.

**Braswell, Geoffrey E. (UCSD)**

[221] *Reinterpreting Early Postclassic Interaction*

For many years interaction between the Maya and Toltec peoples of central Mexico has been

interpreted in terms of core-periphery relations. In particular, many scholars viewed "foreign" traits found in both regions as evidence of the exertion of hegemonic power. Little attention was given to identifying the theoretical reasons why shared styles must imply military intrusion, migration, or diaspora. In this paper, I suggest a more flexible model for Early Postclassic interaction based on Manuel Castell's concept of the Network Society and recent developments in the mathematical field of Graph Theory.

**Braun, David (Rutgers University), Plummer, Thomas (CUNY Queens, NYCEP), Bishop, Laura (John Morris Liverpool University), Ditchfield, Peter (Oxford University) and Ferraro, Joseph (University of California, Los Angeles)**

[17] *Kanjera South: Pliocene Technological Diversity*

The Oldowan may represent a significant adaptive event in the evolution of Pliocene hominins. Descriptions of Oldowan hominin technology focus on variation in hominin behavioral complexity. Yet, often these descriptions are developed without extensive contextual information, which limits evolutionary explanations. Extensive excavation at Kanjera South has provided one of the largest late Pliocene archaeological assemblages outside of Olduvai Gorge, Tanzania. The large sample size and broad raw material composition of Kanjera South make it an ideal setting for investigating variation within the Oldowan. We provide some preliminary insights into the impact of raw material quality and availability on the Kanjera South industry.

**Braun, David [197]** *see Ferraro, Joseph*

**Bravo, Elizabeth [151]** *see Vargas, Marco*

**Bredthauer, Alison [108]** *see Solometo, Julie*

**Breen, Eleanor [13]** *see White, Esther*

**Breglia, Lisa (Wesleyan University)**

[151] *Making Global Heritage: Archaeology and the New Face of Empire*

This paper discusses how projects such as UNESCO World Heritage and the New 7 Wonders imagine the global South as a cultural resource in order to promote and extend the ideological and economic reach of the North. I contend that Northern technologies, fronted by archaeology, seek to produce a global topography of heritage that strikingly resembles the map of colonial Empire, though this cartography of Empire now represents twenty-first century neoliberal globalization. I suggest that as front-line knowledge producers, archaeologists must evaluate both the political and economic implications of "the common heritage of humankind."

**Brenner, Mark [132]** *see Gilli, Adrian*

**Brewer, David (Virgin Islands State Historic Preservation Office)**

[130] *Archaeological NHLs in the United States Virgin Islands*

In the U.S. Virgin Islands there are only a handful of National Historic Landmarks, and even fewer related to archaeological resources, as opposed to those that are architectural. This paper provides a short background on the development of archaeological NHL nominations in the U.S. Virgin Islands and current efforts to increase their number.

[176] *Discussant*

**Brewer, Margaret (SUNY Purchase and LaPorta and Associates, L.L.C., Geological Consultants), LaPorta, Philip (Graduate Center of City University of New York and LaPorta and Associates LLC) and Minchak, Scott (Texas A&M University and LaPorta and Associates)**

[30] *Petrofabric Constraints on Quarry Development and Stone Tool Design: North-Central Appalachians*

Hundreds of prehistoric chert quarries have been documented in the polydeformed Cambrian and Ordovician chert-bearing carbonates of the Wallkill River Valley, (New York/New Jersey). The results of geologic mapping, archaeological excavation and lithic analysis illustrate an elaborate chain of operation of lithic production, in close association with a complicated mining technology fashioned from quartzites and other metamorphic rocks. Comparative research in equivalent-age rocks of the Champlain Valley (New York), and younger rocks in the Delaware (Pennsylvania) Valley, confirm that petrofabric partially determines the time and energy expenditure necessary for the development of prehistoric quarries in the north-central Appalachians.

**Brewer, Margaret (SUNY Purchase and LaPorta and Associates, L.L.C., Geological Consultants) [73]** *Discussant*

**Bria, Rebecca (Vanderbilt University)**

[168] *Linking the Central and North-Central Peruvian Coasts: Pativilca in the Late Intermediate Period*

Sociopolitical developments of Chancay and Chimú on the central and the north-central coasts of Peru have been consistently studied in archaeology. Nonetheless, the region between the physical domains of these groups, the Norte Chico, has received discontinuous attention due to its marginal location between these cultural forces. Through an examination of the stylistic traits of ceramics from the Late Intermediate Period in the Pativilca Valley, this paper illustrates the relationship of the Norte Chico with its neighbors. Drawing upon ethnoarchaeological and archaeological evidence, it is demonstrated how Pativilca cultural identity was shaped by its position between two influential boundaries.

**Bria, Rebecca [120]** *see Hageman, Jon*

**Briggs, John [118]** *see Spielmann, Katherine*

**Bright, Alistair (Leiden University) and Hofman, Corinne (Leiden University)**

[70] *Ceramic Style Distribution Across the Lesser Antilles: An Archipelagic Perspective*

This paper focuses on the distribution of ceramic styles in the Lesser Antillean archipelago. This region is characterized by elaborate exchange systems and intensive social ties, linking dispersed island communities to each other. These interaction spheres can be identified through analysis of the mosaic of ceramic styles that occurs across the Lesser Antilles. Micro-style regions as well as region-transcending spheres can be discerned pointing to a complex web of social relationships. This pattern serves to emphasize the outward-looking, maritime nature of Caribbean communities during the Ceramic Age (400 BC-AD1492).

**Bright, Alistair [1]** *see Hofman, Corinne L.*

**Bright, Jason (Mountain States Archaeology, LLC)**

[195] *A Strict Reading of Costly Signals in Archaeology Through Sex-based Biases in Stylized Ceramic Production*

Archaeologists have used costly signaling theory to address issues ranging from hunting and sharing to pyramid-building. In a sample of world-wide ethnographic societies, sex-based biases in the acquisition of raw material for decorating ceramics seems to qualify as another costly signal. Males acquire raw material at much greater distance or cost than females do, even though decoration does little to improve utilitarian aspects of a pot. But do these data conform to a strict Zahavian definition of costly signals? For various reasons, they probably do not. To what extent can a strict definition of costly signals help or hinder archaeologists?

**Brill, Robert H. (Corning Museum of Glass), Barnes, I. Lynus (National Bureau of Standards), Tong, Stephen S.C. (Corning Glass Works), Joel, Emile C. (Smithsonian Institution) and Murtaugh, Martin J. (Smithsonian Institution)**

[244] *Laboratory Studies of Some European Artifacts Excavated on San Salvador Island, Bahamas*

Investigations at the Long Bay site uncovered artifacts of European manufacture intermingled with native Indian artifacts. These include seven very small glass beads (and fragments of three others), a coin, a small metal buckle, a D-ring, 32 sherds of melado ware, and two small sherds of white-glazed ware. Laboratory studies have been conducted to help determine the origins and dates of these artifacts. The glass beads are wire-wound and have an extremely high lead chemical composition. The coin is a billon blanca of Henry IV minted between 1471-1474. Both buckles were found to be lightly-leaded bronzes. The melado ware has a lead glaze, as do the white wares, although the latter contain tin. All of the artifacts contain intentionally added lead. Their isotope ratios spread over a range, but all are consistent with Spanish origins. The data indicate that the San Salvador artifacts were made in three locations within Spain.

**Brink, Jack [62]** *see Wurtz, Michelle*

**Britain, Lara (The College of Wooster)**[139] *Trading Spaces: A Shift in the Location of Power in Las Canoas, Honduras*

Excavation of structures located near the center of the site Las Canoas located between the Naco and Cacaupala valleys in Honduras show a distinct shift in orientation and a change in architecture over time. Due to the location of the structures and the change in orientation, this suggests that the location of power changed from large ceremonial buildings to small household plazas sometime during the Late Classic period (AD 600-950). This changed the function of the Main Plaza from a public to a private sphere. Reasons for why this change occurred will also be discussed.

**Britt, Tad (ERDC-CERL), Lilly, Jerry (Lilly Technologies) and Baxter, Carey (SAIC)**[42] *Augmenting Reality with HAMMER: A Tool for the 21st Century Archaeologist*

This poster illustrates the capabilities of the Hand-held Apparatus for Mobile Mapping and Expedited Reporting (HAMMER) as demonstrated at Cape Canaveral, FL. The HAMMER integrates a PDA, GPS, LDM, camera, compass, and inclinometer so that the data is collected digitally and stored as a single file. Researchers can pre-load GIS layers, archaeological/historical reports, environmental data, etc., then go to the field armed with the information necessary to target specific loci and collect data in an efficient, criteria-driven manner. The HAMMER automatically prints artifact labels, via a Bluetooth enabled bar code labeler, and when connected to a desktop computer can be configured to generate state site records.

**Brizuela, Alvaro [231] see Mendizabal, Tomas****Brizuela, Alvaro and Biffano, Gloria**[231] *El Rescate Arqueológico del Proyecto Red Frog, Isla Bastimentos: Aportes a la Arqueología de la Región Bocatoreña, Panamá*

Dentro del marco de la denominada arqueología de rescate que se ha hecho en Panamá durante años recientes, se realizaron excavaciones en un sitio precolombino detectado durante el Estudio de Impacto Ambiental del desarrollo inmobiliario Red Frog Beach Club. Estos trabajos representan el primer esfuerzo sistematizado de investigación arqueológica en esta isla. Debemos señalar que, obviamente, fue financiado por los promotores del proyecto (el grupo Red Frog Beach Club). Durante nuestra exposición abordaremos los resultados preliminares de la investigación y correlacionaremos los mismos con otros sitios arqueológicos explorados en el área circundante (Península del Aguacate/Linares, Boca del Drago/Wake).

**Brodsky, Marcella (CSU-Northridge) and Gilman, Antonio (CSU-Northridge)**[85] *Least Cost Modeling and the "Classic" Bronze Age of the Iberian Peninsula*

Site catchment analysis (a least-cost modeling perspective derived from classic political economy) provides reasonable predictions of settlement locations for the Copper Age of southeastern Iberia, but not so for the subsequent Bronze Age. Two methodologically different survey programs provide the systematic basis for evaluating the contrast between economically expected and observed site placement and thus for reconstructing the political conditions under which the Bronze Age settlement pattern developed.

**Bromley, Gordon [53] see Rademaker, Kurt****Brook, Edwin [234] see Schwartz, Lauren**

**Brooks, Alison (George Washington University/Smithsonian) [32] Discussant; [134] see Selig, Ruth; [32] see Yellen, John**

**Brooks, Alison (George Washington University/Smithsonian) and Yellen, John (National Science Foundation)**[59] *Landscape and Subsistence Strategies in the Later Middle Stone Age of Eastern and Eastern/Central Africa*

In comparison to older MSA sites, new behaviors appearing throughout eastern Africa after 130kyr include: widespread occupations of caves/rock shelters, more intensive patterns of site re-occupation, greater exploitation of small-scale resources including fish, bladelets, small toolkits approaching microlithic size, and small hafted and even pressure-flaked points in the size range of ethnographically known at!-at! darts and arrowheads. These latter are frequently made on exotic raw materials, representing long-distance procurement strategies. Occasional



occurrences of beads support implications of the above characteristics for a more densely settled, competitive human landscape between 130 and 70kyr.

**Browder, Jennifer (California State University, Northridge)**

[236] *The Art of Dance at Teotihuacan*

Images of dance and related rituals are well known in many Mesoamerican cultures, including the Aztec and ancient Maya. Dance imagery is also present at Teotihuacan. As portrayed in the murals of the Tepantitla compound, human figures are shown dancing and playing music. A comparison with ethnohistoric and archaeological sources for both the Aztec and ancient Maya suggests that scenes of dance at Tepantitla may also indicate the performance of rituals, dramatic poetry, and other formalized speech.

**Browman, David L. (Washington University - St. Louis) [181] *Discussant***

**Brown, Clifford T. (Florida Atlantic University), Peraza Lope, Carlos (Centro INAH Yucatan), Witschey, Walter R. T. (Science Museum of Virginia) and Rogers, Rhianna (Florida Atlantic University)**

[177] *Results of Survey in Central Yucatan, Mexico*

In 2005, we performed both purposive and systematic survey in the central portion of the state of Yucatan, Mexico. Our project area extended from Acanceh in the northwest to Yaxuna in the northeast, south to Plato, west to Mani, and then returned north to Acanceh after passing through the site of Mayapan. We investigated approximately 35 sites, most of which were previously unreported, and we systematically surveyed approximately 10 km of transects, finding a relatively high density of rural settlement. The survey provided significant new information about settlement patterns in this key central area of the Maya lowlands.

**Brown, David A. (The Fairfield Foundation) and Harpole, Thane H. (The Fairfield Foundation)**

[245] *Defining Change within Plantation Landscapes*

Common perspectives of plantation landscapes are often framed by colonial revival evocations, stand-alone house museums, or inscrutable plowed fields. Landscape archaeology, including excavations into plowed contexts, can provide a deeper understanding of the networks of buildings, activity areas, and open space that comprised the dynamic historic landscape. Plowzone data from surveys, intensive testing, or full-scale excavation, can provide vital information about landscape change at the individual building level and plantation wide context. This paper draws on plowzone evidence from sites in Gloucester County to display the social and economic evolution of southeastern Virginia plantations from 1650 to 1900.

**Brown, James (Northwestern University)**

[206] *Tensions at Transitions*

Short-term temporal scales give rise to a very different view about social change than long term ones. The annual and decadal scale is thought of as history; the multi-hundred year scale is one of evolution. Both have their distinct explanatory modes. Just how the macro-scale evolutionary perspective meshes with the micro-scale historical one, if indeed they do, is a challenging problem. One aspect to this problem is to pre-judge the inevitability of transitions, say from foraging to farming economies. Different scales are easily confused by the outcome. A case in point is Jared Diamond's book, *Guns, Germs and Steel*.

**Brown, James [205] see Kelly, John**

**Brown, Linda (George Washington University)**

[54] *"Good to Dream With:" Ritual Collection, Power, and Access to the Supernatural Among Contemporary Maya Ritual Practitioners*

The tradition of ritually collecting archaeological objects is widespread among contemporary Maya ritual practitioners. Through collecting artifacts, incipient ritual practitioners become aware of, and actively participate in, divine election with its supernatural sanction for a change in social status. Rather than being viewed through an archaeological lens, ritually collected and curated artifacts are "seats" of power for potent ancestral deities who teach their caretakers esoteric knowledge in the dream world. By engaging in the ongoing collection and curation archaeological objects, individuals actively communicate with important ancestral forces and directly access supernatural power thereby subverting the agenda of dominant Christian sects.

**Brown Enrile, Margaret [58] see Pajuelo, Eva**

**Bruhns, Karen Olsen (San Francisco State University) and Snarskis, Michael (CATIE--Costa Rica)**

[34] *Mesoamerica and the Chibchan Peoples*

The northern Chibchan peoples lived in close proximity to a series of Mayan and, later, Mexicanized Maya and Mexican cultures such as the Pipiles and Nicaraos. The topic of Mesoamerican influence on the material and ideological culture of these Chibchan peoples has received little attention and Mesoamerican items or motifs on artifacts found in the Chibchan realms have generally been ascribed to "influence" or down-the-line trade. However, a Mesoamerican influence is more pervasive and argues for close relations between some of the northern Chibchan speakers and those Mesoamericans who were their close neighbors, trading partners, and competitors in land tenure and warfare.

**Brumbach, Hetty Jo [58]** *see Jarvenpa, Robert*

**Brumfiel, Elizabeth M. (Northwestern University)**

[147] *Human Representation at Postclassic Xaltocan, Mexico: Does Form Follow Function?*

Three hundred and fifteen figurines from Postclassic Xaltocan, Mexico, comprise as many as five different categories: free standing figurines, figures on effigy vessels, masks or pendants, children's toys, figures on musical instruments. Do representations of the human form differ according to figurine category, and can these representations help us to understand the functions of the different figurine categories? How were these functions distributed among households at any point in time? And how did these functions change in frequency over the course of seven centuries, in response to the changing political status of the community?

[85] *Discussant*

**Bruni, Phil (University of Illinois, Chicago)**

[153] *Functional Analysis of Early Copper Age Enclosures at Vésztő-Bikeri and Körösladány-Bikeri*

Enclosed sites are common through the Neolithic and the Copper Age of central and eastern Europe. The difficulty in determining the function of Early Copper Age enclosures must be dealt with by examining the reliability of various hypotheses, accounting for geological processes during the Copper Age, and what one would expect to be present in the social and economic matrix. Enclosed Early Copper Age sites, such as Körösladány-Bikeri in Hungary, will be compared with other well-excavated enclosed sites in the region to help define their social and economic roles in the landscape.

**Bruno, Maria [178]** *see Moore, Katherine M.*

**Brunton, Thomas (SUNY-Brockport)**

[247] *Space-Time Geography and the Organization of Labor: A Case Study from 10th Century England*

This paper applies space-time geography methods to the study of change at the Low Birker site from the Viking Age of northwest England. The area at this time was inhabited by Celtic-speaking commoners ruled by a Norse elite. Large scale iron production at the site under the control of outsiders significantly changed the cultural landscape and the 'paths' and 'projects' of the local inhabitants. While radically different from their previous independent pastoral lifestyle, this study shows that the iron workers did not completely lose their independence in decisions about labor or control of the landscape.

**Brush, Nigel (Ashland University)**

[188] *Rockshelter Utilization in the Eastern Woodlands: Patterns of Stability & Change*

Rockshelters are enduring features in the natural landscape; they remain unchanged for thousands of years. The human cultures utilizing these shelters, however, are more ephemeral – settlement, subsistence and trade networks change. Therefore, the functional potential of a rockshelter is dependent upon the cultural landscape in which it is embedded. This study of rockshelter use in the woodlands of northcentral Ohio over the past 12,000 years documents this pattern of changing spatial relationships. Although a rockshelter may be repeatedly utilized over many millennia, its function can vary from a base camp or hunting camp, to a rest area or catchment site.

**Bruwelheide, Karin [70]** *see Owsley, Douglas*

**Bruxelles, Laurent (INRAP) and Chalard, Pierre (INRAP)**

[74] *Geoarchaeological Prospecting and Paleolithic Exploitation Strategies of the Bajocien Flints in Haut-Quercy, France*

This poster presents recent research on sources of flint that are often ignored due to their widespread regional distribution or their classification as mediocre. In Haut-Quercy, France, the Bajocien flints for example can represent a major part of the locally available lithic resources. A careful technological analysis of local archaeological assemblages demonstrates that these resources were not incidental to hunter-gatherer groups and their exploitation provides additional information to understanding group territories. GIS is combined with numerical modeling of the landscape for a more complete geoarchaeological analysis of these regional raw material sources.

**Buchanan, Courtney (Pomona College)**

[252] *Settlement Variation in Viking Age Britain: An Interpretation of Old and New Sources*

It has been established that the Viking period in Scotland differed greatly from that in England, particularly in regard to the scale and duration of settlement. Disparities in the environment, agricultural potential, and the interactions between Vikings and local peoples have been presented as reasons for these differences. This paper addresses additional factors that, when combined, enrich our understanding of the variation in Viking Age Britain: the political climates and socioeconomic conditions in each of the countries at the time of the invasions, as well as discrepancies in the historical records and modern archaeological scholarship of the two countries.

**Buchli, Victor (University College London) [185] Discussant****Buck, Paul (Nevada State College/DRI) and Sakai, Sachiko (UC Santa Barbara)**

[108] *Testing of Virgin Anasazi Sites at Mt. Trumbull, Arizona*

Test excavations were conducted at five Puebloan sites in the Mt. Trumbull area of NW Arizona during the summer of 2005 as part of the ongoing Mt. Trumbull Prehistory Project led by Nevada State College and Desert Research Institute. We recovered wood charcoal and burned seeds for 14C dating, collected samples of diagnostic ceramics for chemical analyses and TL dating, and found deposits up to 1.4 meters deep. Additionally, several other sites were mapped in detail and a systematic sample of surface artifacts collected. Soil pits were dug and samples collected, providing information about prehistoric agricultural productivity.

**Budd, Paul [141] see Hughes, Susan S.****Budja, Mihail (University of Ljubljana)**

[19] *Transition to Farming in South-East Europe*

The transition to farming in southeastern Europe is discussed as the palimpsest relates to artefact assemblages, subsistence and archaeogenetic data. We suggest that the dispersal of farming was embedded in the existing, regional pre-Neolithic social structures. It was set by networks of social relationships and contacts, as well as the traditional, socially and culturally defined principles of intergenerational and inter-community transmission of knowledge. People, through contact, local and/or regional mobility, provided the agency for selective incorporation of innovations such as cultigens, domesticates and pottery, and in a social context allowed for changes to the structural framework.

**Buechler, Jeff (University of Illinois at Chicago)**

[156] *Architecture and Socio-Political Affiliation North of Aguateca*

Survey has revealed dispersed settlement along the escarpment between the Petexbatun region sites of Tamarindito and Aguateca. Architectural characteristics seem to reflect a largely local population, yet suggest that the intrusive dynasty of Aguateca began to have some influence amongst local elites living in this area. This data informs upon the nature and timing of Motul dynasty socio-political relations in the northern areas of the presumably former Tamarindito/Arroyo de Piedra polity.

**Bueno, Lucas and Isnardis, Andrei (MAE/USP)**

[69] *Lithic Variability in the Central Brazilian Plateau: Processes of Differentiation and Continuity During the Holocene*

The actual knowledge produced by researches in the central Brazilian plateau point to a

homogeneous lithic assemblage during the transition between the Pleistocene and the Holocene (12,000 and 9,000 BP). These assemblages are marked by two different strategies in the production of unifacial artifacts: curation and expedience. Although there is a scarcity of data related to lithic assemblages during the middle Holocene, there are some indicators of processes of regionalization and diversification after 8,000 and 9,000 BP. We discuss this hypothesis making references also to different aspects of the material culture present in archaeological contexts from the middle Holocene in central Brazil.

**Buikstra, Jane E. (Arizona State University) and Bell, Ellen**

[206] *Grave Transitions: The Bioarchaeology of Early Classic Copán*

Early Classic Copán funerary contexts amply document lifecourse spatial, social, and political transitions. For example, residence histories, crystallized within teeth and bones, identify both the founder of the Copán dynasty and sacrificial victims as northern immigrants. Equally significant, however, are the transformational, revisionist histories wrought by mourners. Extended post-interment rituals involving tomb re-entry and pilgrimage reveal a complex interplay between ancestor veneration the manipulation of social memory. We also link artifactual and architectural evidence from the Hunal/Margarita tomb complex to transformations of the previously living to symbols of the sun and moon, thus linking Mayan cosmological and dynastic progenitors.

**Buikstra, Jane E. (Arizona State University) [10] Discussant; [104] see King, Jason L.; [47] see Lozada, Maria Cecilia; [47] see Lewis, Jr., Cecil M.**

**Burger, Richard (Yale University) and Salazar, Lucy (Yale Peabody Museum)**

[207] *Monumental Public Complexes and Agricultural Expansion On Peru's Central Coast during 2nd Millenium BC*

During the second millennium BC monumental architecture proliferated along the Peru's central coast on a scale rarely if ever equaled in the area's prehistory. Drawing upon investigations in the Lurin Valley, this talk will explore the emergence of multiple public centers with distinctive U-shaped pyramid complexes and their relationship to the expansion of irrigation agriculture and concomitant demographic growth. It will be argued that monumental architecture developed in tandem with agricultural production on Peru's central that the distinctive settlement pattern documented during the Initial Period in the Lurin Valley reflects factors other than the emergence of the archaic state.

**Burgess, Laurie (Smithsonian Institution) and Reeves, Matthew (Montpelier Plantation)**

[5] *Glass Beads from the Gilmore Cabin, Montpelier Plantation, Virginia*

During excavations at the Gilmore cabin at James Madison's Montpelier Plantation in Virginia over 3,000 glass beads were recovered from late 19th-century deposits within and under the cabin. Most glass beads derive from Native American-related sites; these beads are from an African-American context. Following emancipation George Gilmore, a former slave at the plantation, owned the cabin. Embroidery beads occur with such frequency that they suggest seamstress work, and the bead varieties include molded types not seen before. This collection is valuable for comparative purposes since few bead assemblages from this time period have been described.

**Burgess, Robin (Bureau of Land Management)**

[225] *The Cultural Resources Data Sharing Project: Federal and State Collaboration Building Shared Databases*

The Bureau of Land Management has committed over \$2 million to work with western State Historic Preservation Offices to help build shared databases. The SHPOs manage the site-specific and investigation-specific GIS and database information that BLM submits to them. The SHPOs conduct quality control on the data and automate, scan or process the data as necessary to add to the existing dataset. The BLM accesses the data either through the internet or by periodic digital updates provided by SHPO. Currently, 12 BLM western State Offices are working with 14 SHPOS on the Cultural Resources Data Sharing Project.

**Burke, Adrian L. (Université de Montréal)**

[74] *Extraction, Reduction, and Production at a Late Paleoindian Chert Quarry in Eastern Quebec*

Two prehistoric chert quarries have been discovered to date on the north shore of the Gaspé Peninsula, eastern Quebec, Canada. Based on an analysis of the lithic technology the quarries

date to the Late Paleoindian period (ca. 10000-8000 BP). This poster demonstrates how the geological characteristics of the chert member or outcrop articulate with the reduction sequence or chaîne opératoire. The formal aspects of Late Paleoindian stone tool technology are best understood within the context of local geology and the constraints posed by the raw material that control most, but not all, dimensions of extraction and initial reduction.

[73] *Discussant*

**Burke, Ariane (Université de Montréal)**

[125] *Reading the Land and Looking for Friends: The Impact of the Landscape on Social Integration during the Middle Palaeolithic*

The persistence of Neanderthal populations in topographically complex regions suggests that they were sensitive to the landscape. A key aspect of landscape is legibility; a "legible" environment facilitates interactions between individuals in thinly dispersed hunter-gatherer populations by providing a coherent structure. In the absence of recurrent networks of social relations, hunter-gatherer groups are poorly integrated regionally and their long-term viability is at stake - particularly during times of crisis. This situation worsens if, as is proposed for the Neanderthals, there are few social mechanisms for maintaining social relationships beyond co-presence and predictable aspects of the landscape are key to structuring social networks.

**Burkholder, Jo Ellen (University of Wisconsin at Whitewater)**

[21] *Beyond Pots and Spindle Whorls: Roles of Women in Tiwanaku Culture*

Literature on Tiwanaku culture is virtually devoid of any conversation about the nature of gender and the roles of women. Data exists however, in multiple forms that can begin to flesh out where women were and what roles they played. Through subtle constructions in material culture the roles of Tiwanaku women were played out in many different arenas, some of which are surprising, given expectations for the subordination of women in state-level societies. This paper uses data from a number of sources including excavations from the Iwawi site to expand our understanding of women and gender in the Andean past.

**Burnett, Rich (Brigham Young University), Terry, Richard (Brigham Young University) and Sweetwood, Ryan (Brigham Young University)**

[179] *The Soil Resources Associated with the Ancient Earthworks at Tikal, Guatemala*

In connection with the Re-Evaluation of the Earthworks at Tikal, Guatemala, a study of the soils associated with the earthworks was conducted. Soils samples were collected from the wall and ditch, from excavations near the earthworks, and from the surrounding landscape. Physical and chemical soil analyses were conducted on the samples including the identification of soil types and the measurement of stable carbon isotopes. The relations between soils and archaeology were studied to understand the archaeological landscape surrounding the earthworks.

**Burr, George [44] see Gonzalez, Susana**

**Burson, Elizabeth (Mimic Studios, Inc.) and Milligan, Derek (Mimic Studios, Inc.)**

[62] *Rapid, Precise and Realistic: Making 3D Work for Cultural Heritage*

How can public and private-sector archaeologists seamlessly incorporate high-end 3D recording into field and lab settings? How can we deliver the resulting data to clients, colleagues, and the public in usable formats? Many archaeologists now use scanning technology in their workflows to save time and money, while benefiting from exponentially greater accuracy, resolution, and quality than traditional methods. Learn from the experiences of experts in this expanding field how to incorporate 3D data into mainstream GIS, web page, and database applications without compromising speed or quality.

**Burton, James [206] see Middleton, William D.**

**Burton, James H. (University of Wisconsin) and Barba, Luis (Laboratorio de Prospección Arqueológica del Instituto de Investigaciones Antropológicas - UNAM)**

[185] *Chemical Analysis of Floors from a Traditional Habitation Unit at Muxucucxab, Yucatan*

Samples from floor areas of Muxucucxab, a traditional Yucatan household, were previously analyzed for pH, carbonate, and phosphate to determine domestic space use and activity areas. We here extend the chemical analysis of soils from Muxucucxab by applying ICP spectroscopy to measure an additional suite of metals (Al, Fe, Cu, Zn, Mn, Ti) and soluble anions (Ba, Ca, Mg, Na, Sr). Each element exhibits potential individually as a prospection tool and collectively through multivariate analysis as an aid to further interpretation of activity areas. Although the

analyses employed sophisticated laboratory facilities, some relevant aspects of the data do not require high precision and should be amenable to detection through semi-quantitative field techniques.

**Burton, John (DePaul University) and Baxter, Jane (DePaul University)**

[244] *Transitions in Plantation and Post Plantation Economies on San Salvador, Bahamas*  
The Bahamian islands beyond New Providence are often known as the out or family islands and are characterized historically, in part, by their relative isolation from major markets. The economic ties between these outer islands and Nassau are not well understood, particularly for the post emancipation period of the mid to later 19th century. This paper traces historical changes in economic ties between the islands of San Salvador and New Providence from the plantation period to the early 20th century using historical records and the archaeological evidence from the site of Polly Hill.

**Burton, John [244]** see *Baxter, Jane Eva*

**Bury, Rick [196]** see *Robinson, David*

**Busch, Richard [69]** see *Lappegaard, Michelle*

**Bustamante, Angel [219]** see *Delgado, Mercedes*

**Buswell, Tessa [65]** see *Ely, Lisa*

**Butterwick, Kristi (Museo de las Americas, Denver)**

[147] *Imagery of Social Status in West Mexican Figures*  
An examination of ceramic figurines from West Mexico gives insight into the importance of ritual feasting and kinship in emergent socio-political hierarchies around 100 AD. Figures holding pots and bowls, and groups of figurines staged around large vessels portray ritual feasting. Similar costume, body art, and adornments worn by the figurines may express the shared societal bonds of kinship.

**Button, Seth (University of Michigan)**

[247] *Islands of Refuge; Islands of Desolation*  
Evidence from the Aegean and the Adriatic is used to explore connections between episodes of political unrest or collapse in continental and insular settings and changes in demography and settlement patterns observed on adjacent islands and island groups. Included are cases in which the archaeological evidence suggests islands served as places of refuge for displaced people, on the one hand, and, on the other, cases of depopulation and increased isolation resulting from factors such as the breakdown of law and order or island and mainland peoples' inability or disinclination to maintain links of communication and exchange.

**Buvit, Ian (Washington State University), Terry, Karisa (Washington State University), Kolosov, Viktor K. (Chita District Museum of Regional Studies) and Konstantinov, Mikhail V. (Chita State Pedagogical University)**

[150] *The Priiskovoe Site and the Emergence of the Upper Paleolithic in Southern Siberia*  
Archaeological manifestations of the initial Upper Paleolithic in Siberia are not well understood. Traditional thoughts hold that Upper Paleolithic toolkits replaced, or developed out of, local Mousterian industries. The assemblage from Priiskovoe appears to be neither. Clearly not Mousterian, it is flake-based and seemingly unrelated to other blade-based Upper Paleolithic assemblages in the area. Recent studies reveal that poor-quality raw material could have been a determining factor in the types of artifacts made at Priiskovoe. Possibly, its chipped-stone inventory reflects a site-specific expression of the Upper Paleolithic in southern Siberia, rather than a separate cultural tradition.

**Buzon, Michele R. (University of Alberta)**

[10] *The Bioarchaeological Effects of Egyptian Colonial Activities in Nubia during the New Kingdom*

Nubians and Egyptians have had a long history of interaction. During the New Kingdom period, Egypt succeeded in occupying most of Nubia. However, scholars disagree about who controlled Nubia during this important time, Egyptian colonists or native leaders. Recent bioarchaeological excavations and analysis of burials from the site of Tombos in Nubia (modern-day Sudan) have

provided important new information regarding this time of contact with the Egyptian empire. This paper addresses the bioarchaeological effects of the Egyptian colonial activities in Nubia during the New Kingdom through the investigation of ethnic and biological affinities, migration, as well as health and disease.

**Bybee, Alexandra (Cultural Resource Analysts, Inc.)**

[251] *Historic Central Appalachian Mortuary Customs: A View from Eastern Kentucky*  
Historic customs surrounding human death in central Appalachia developed from local tradition and culture, with economic and social conditions existing within individual populations strongly influencing death rituals. As a result, a variety of mortuary customs developed, many of which were specific to nineteenth and early twentieth century central Appalachia. This paper discusses mortuary practices that were fundamental to many historic central Appalachian populations. An emphasis is placed on eastern Kentucky, with examples from several rural family cemeteries.

**Byers, David [105]** *see Smith, Craig S.*

**Byrnes, Allison (Mercyhurst College), Yucha, Trevor (Mercyhurst College) and Glennon, Shannon (Mercyhurst College)**

[35] *The Irvine Flats Lithic Assemblage: Raw Material Exploitation and Land Use in the Great Lakes and Midwest Regions*

An extensive surface survey of the Irvine Flats site complex near Warren, Pennsylvania, has produced evidence of human occupation ranging from Early Archaic through Historic times. This paper provides a characterization of the Irvine Flats assemblage and a discussion of the site's relationship to our current understanding of shifting land use patterns and raw material utilization throughout prehistory in the Great Lakes region. As many sites, particularly in eastern North America, occur in fields that have been plowed for archaeological or agricultural purposes, we also address methodological issues including the potential for identifying and dating cultural features in dispersed contexts.

**Cable, Charlotte (Michigan State University)**

[223] *Jewbury: New Thoughts on the Medieval Jewish Cemetery at York*

Mortuary contexts provide both spatial and non-spatial frameworks for understanding how a group organizes itself internally and in relation to outsiders. The medieval Jewish cemetery in York, UK, ca. 1177–1290 AD, although seemingly one social and religious group, is a fascinating example of the kinds of relationships and tensions made evident through mortuary practices. Re-examination of the Jewbury burials (Lilley, et al. 1994), in terms of space and some of the assumptions of the initial published analysis, provide alternative interpretations of how the medieval Jewish community of York and its environs may have used different parts of the cemetery.

**Cabrera, Oralia (Arizona State University)**

[236] *"Semi-Rural" Sites and Teotihuacan México: Results from Field Operations at Site San José 520*

Economic and social relationships between the ancient metropolis of Teotihuacan and sites in adjacent parts of the urban hinterland have been neglected in archaeological research. Preliminary results from excavations at a site located in the margins of the ancient city suggest that its inhabitants were potters, making ceramics that were exchanged within the city. Funerary patterns and portable artifacts indicate that the inhabitants of this semi-rural settlement had strong cultural connections with people living within the city, but were of low economic and social status.

**Cacho, Carmen (Museo Arqueológico Nacional, España), Aura Tortosa, Juan Emilio (Departamento de Prehistoria i Arqueología, Universidad de Valencia Departamento de Prehistoria i Arqueología, Universidad de Valencia Departamento de Prehistoria i Arqueología), and Jordá Pardo, Jesús**

[199] *La Transición del Pleistoceno al Holoceno en la Vertiente Mediterránea de la Península Ibérica*

Durante la transición de Pleistoceno al Holoceno tienen lugar una serie de importantes cambios medioambientales que obligan a los últimos grupos de cazadores- recolectores a iniciar un proceso de adaptación. Esta adaptación implica modificaciones en las formas de aprovechamiento de los recursos alimenticios y por tanto en su tecnología. Paralelamente se

intensifica el control del territorio y se producen otras transformaciones significativas. Nos evaluamos los diferentes aspectos de este proceso de adaptación, que se produce de forma gradual desde el final del Magdaleniense hasta el inicio del Neolítico, a partir de los principales registros arqueológicos de la vertiente mediterránea peninsular.

**Cahue, Laura (University of South Carolina)**

[10] *Coping with Food Insecurity in the Tarascan State: Demographic Shifts and Infectious Diseases from State Formation to Spanish Conquest*

The Tarascan State developed in the Lake Patzcuaro Basin (LPB) in the Middle-Late Postclassic (AD 900 - AD 1520) during a period of lake level fluctuations leading to shifting food availability. This study focuses on two major political and economic transformations in the LPB, state formation and Spanish conquest. It examines the strategies the Tarascan State used to cope with food insecurity. The data show that in the LPB, migration has been a central mechanism for coping with food insecurity, and it has had a significant impact on health and susceptibility to infectious diseases.

**Callaghan, Michael (Vanderbilt University)**

[182] *A Preliminary Assessment of Ceramic Material from Holmul, Guatemala*

Ceramic material from initial investigations of Holmul, Guatemala in 1911 became the basis for intense debate about the origins of Classic Maya civilization and also included some of the finest testaments to ancient Maya artistic ability. Based on material obtained from ongoing investigations of the Vanderbilt Holmul Archaeological Project, this paper will present a preliminary reassessment of Holmul Region ceramic material spanning the Early Middle Preclassic through Terminal Classic Periods.

**Callaghan, Michael [208]** see *Neivens de Estrada, Nina*

**Callaghan, Richard (University of Calgary)**

[84] *Crossing the Guadeloupe Passage in the Caribbean Preceramic Age*

It has been suggested that two Preceramic cultures existed in the northern Lesser Antilles. One was the Ortoiroid culture originating in Venezuela and the other is connected to the Couri culture of the Greater Antilles. Remains of either of these cultures are scarce south of the Guadeloupe Passage but are not uncommon to the north. The evidence for Preceramic cultures south of the Guadeloupe Passage is evaluated and computer simulations of voyaging are used to assess the difficulty in crossing it. Suggestions are made as to why the evidence for these early cultures to the south is so ephemeral.

**Cameron, Catherine (University of Colorado)**

[31] *Exploring Slavery and the Abduction of Women in the Archaeological Record*

Slavery and the abduction of women are practices with a long history worldwide in groups of all social levels, but these practices have rarely been examined as factors in the transfer of technology, the distribution of material culture, or as a cause for shifts in social/ideological knowledge. This paper examines slavery and the abduction of women as potential sources of variability in the archaeological record and considers how these practices disrupt our assumptions the nature of social boundaries in the past. Although slavery was common in ancient state-level societies, such as Greece and Rome, this paper focuses on middle-range societies.

**Camp, Jennifer (University of Montana), Ahlman, Todd (University of Montana) and Schroedl, Gerald (University of Tennessee)**

[5] *Community Dynamics and Social Status at the Brimstone Hill Fortress National Park, St. Kitts, West Indies*

Archaeological investigations at the Brimstone Hill Fortress National Park have focused primarily on recording the role enslaved Africans had in the fort's construction and maintenance. Brimstone Hill was a multiethnic community occupied by British officers, enlisted men, and enslaved Africans. Recent excavations of a complex set of buildings and features where British Royal Engineers lived and worked have broadened our knowledge of the site's occupants and reveal how the engineers used specific structures and their arrangement to demonstrate their social status within the Brimstone Hill community. Recovered ceramics further demonstrate differences among the site's inhabitants.

**Campbell, Kendall (University of Florida)**

[115] *Catastrophic Tsunami: Prehistoric Peruvian*

Recent natural catastrophes around the world, including the December 2004 tsunami in



Indonesia have made relevant the tremendous short and long term impacts natural disasters can exact on human communities and cultural regions. In 2004, the first systematic research to identify tsunami and the types of subsequent effects this natural disaster imposed on Peruvian prehistory and cultural was undertaken. Preliminary analysis verifies that a catastrophic tsunami struck the north coast of Peru during the Late Cupisnique cultural period. This paper will address Cupisnique vulnerability to tsunami and the impacts of this wave on Cupisnique culture.

**Campbell, S.A. [132]** *see Oliver, J.S.*

**Campbell, Stuart [215]** *see Kansa, Sarah*

**Cancino, Ignacio (Stanford University)**

[152] *A Model of the Relationship between Environmental Variables, Physical and Cultural Characteristics on Irrigation Systems in Arid Lands*

A model of the relationship between the most important environmental variables in arid lands, irrigation infrastructure characteristics and sociocultural features on irrigation systems is developed. The model is an effort to resolve theoretical problems of anthropological and archaeological thought on the topic. There appears to be a discernible relationship between environment, physical and cultural variables in the configuration of irrigation systems in arid lands.

**Cannon, Aubrey (McMaster University)**

[211] *Being of Two Minds: Dual-Process Grieving and Bell-Wethering in Mortuary Trends*

The dual-process model of grief identifies a common psychological propensity to use both confrontation and avoidance as equally effective strategies for coping with death and loss. It therefore offers a way to account for dramatic variation in the permanence and archaeological visibility of mortuary expressions in particular cultural settings. The simultaneous exercise of both strategies at the level of populations and a tendency to follow emergent trends in either direction is a basis for explaining oscillations in mortuary behaviour. The examples of Victorian England and various long-term archaeological trends illustrate these common individual propensities and their culture-historical consequences.

**Cannon, Mike (California State University, Long Beach)**

[80] *Efficiency, Risk, and the Evolution of Agricultural Economies*

Some behavioral ecologists have approached issues relating to the evolution of agriculture by using a time allocation model that employs average productive efficiency as a currency. This poster discusses an extension of this model that incorporates risk, or variability in gross production, which has long been considered also to be relevant to the evolution of agriculture. This theoretical framework can be used to develop hypotheses about the causes of agricultural evolution, and tests and potential tests of these hypotheses are discussed. This theoretical framework also shows how HBE and "selectionist" approaches can be integrated to build more complete evolutionary explanations.

[44] *see Schaaf, Lisa N.*

**Canuto, Marcello A. (Yale University), Bell, Ellen E. (Kenyon College), Bill, Cassandra R. (Tulane University) and Geller, Pamela L. (American University)**

[159] *Constructing Identity: Architectural Practice, Identity, and Affiliation in the El Paraíso Valley, Department of Copan, Honduras*

Centrally located between the Classic Maya centers of Copan and Quirigua and with access to non-Maya hubs to the east, the El Paraíso valley was a critical node within the interregional exchange network of western Honduras. Its inhabitants were likely required to form, negotiate, and maintain multiple and distinct corporate identities and affiliations. These distinctions were made manifest through several obtrusive and eye-catching media, including the architectural style and spatial planning of their elite centers. This paper explores how and why clear and blatant differences between the contemporaneous El Paraíso and El Cafetal sites relate to the valley's borderland status.

**Canuto, Marcello A. [210]** *see Geller, Pamela L.; [234]* *see Bell, Ellen*

**Capriles, Jose [178]** *see Moore, Katherine M.*

**Carballo, David (University of Oklahoma)**[3] *Prehispanic Political Evolution and the Puebla-Tlaxcala Valley of Mexico: A GIS Study*

The Puebla-Tlaxcala Valley of central Mexico witnessed the evolution of local regional polities during the Middle-Terminal Formative periods (c. 800-1 BC), and cycles of political expansion initiated by the highly centralized states of the adjacent Basin of Mexico during the Classic and Postclassic periods (c. AD 1-1519). This study reevaluates settlement and environmental data, which were gathered in Puebla-Tlaxcala by regionally focused projects during the 1960s and 1970s, using contemporary GIS applications. The assessment of regional settlement hierarchies, land use, and their changes over three millennia provides new insights into central Mexican political evolution.

**Carballo, Jennifer (University of Michigan)**[7] *Theories of Human Cooperation and the Nature of Early Village Organization in Central Tlaxcala, Mexico*

Contemporary evolutionary approaches to understanding human cooperation emphasize the importance of community rituals in promoting social integration and reinforcing social norms. This paper will explore cross-cultural evidence for the role of these activities in early autonomous village societies, to better understand the nature of village organization prior to the development of more complex societal organization. Data from Formative (c. 900-600 BC) Tlaxcala, will be presented, focusing on formal and stylistic analyses of ceramic assemblages, combined with a general assessment of village political economy and ritual activities, to examine theories of cooperation, and outline archaeological expectations for such practices.

**Carbonell, Eudald (Universitat Rovira i Virgili)**[17] *Lithotechnical Mode I: Evidence from Atapuerca*

Technical Modes are cultural demarcations applied to the tangible lithic record. The conventional scheme defines Mode I as assemblages devoid of large morphotypes (e.g. handaxes, cleavers, and picks). Such industries are known 2.5 -0.4 Ma. Mode II refers to lithic industries that include large tools, and span 1.6 to 0.1 Ma. This scheme should be revised given recent research advances. Accepting Kada Gona (2.5 Ma in Ethiopia), Dmanisi (1.8 Ma in Georgia) and Atapuerca (1.0 Ma in Spain) as Mode 1 occurrences, we need to establish technological criteria for defining these assemblages and placing them in the same lithotechnic complex.

**Card, Jeb (Tulane University)**[216] *Evaluating Ceramic Evidence of the European Invasion of Mesoamerica*

The arrival of Spaniards transformed many elements of Mesoamerican life, including material culture. This phenomenon is archaeologically detectable, but is often not as overwhelming a change as that recorded historically. This subdued profile of invasion occurs even inside Spanish cultural and military centers. The ceramic assemblage from the short occupation (1528-1545) of Ciudad Vieja, El Salvador includes only small numbers of typical colonial markers, subtle yet informative hybridization of two ceramic traditions, and overall continuity with Postclassic pottery but with key exceptions. This example offers an important opportunity to inform the study of multi-component sites elsewhere in Mesoamerica.

**Carlson, Eric, Goodale, Nathan (Washington State University), Kuijt, Ian (University of Notre Dame) and Finlayson, Bill (Council for British Research in the Levant)**[133] *Tool Production and Maintenance During the Transition to Agriculture: A Case Study from the Near Eastern Neolithic*

An important facet to understanding lithic technological organization revolves around our ability to understand not only how stone tools were produced but also how they were maintained through their use-life cycles. This paper represents a case study of the possible means that lithic tools were produced and maintained during the Early Neolithic at Dhra', Jordan. This is accomplished by replication of retouch patterns through production, use, and maintenance complemented by a use-wear study of replicated and archaeological samples. Conclusions from this study will aid in our understanding of lithic technological and human organizational strategies during the transition to agriculture.

**Carlson, Keith (University of Arizona)**[168] *Late Preceramic and Initial Period Settlement Dynamics in the Huaura Valley, North-Central Coast, Peru: A GIS-Based Locational Analysis*

Completed survey in the Huaura Valley of the Peruvian north-central coast has identified extensive Late Preceramic (2800-1800 BC) and Initial Period (1800-900 BC) occupations of the

region. This paper presents a GIS-based settlement pattern analysis comparing locational patterning of sites during these time periods in terms of physical setting, accessibility, relation to irrigable lands and the coast, and inter-site distance. Statistical analyses and cost surface modeling are employed. Comparisons between these occupations inform on changing subsistence and social dynamics and have broader implications for understanding the early development of complex society on the Peruvian coast.

**Carlson, Lisabeth (Southeastern Archaeological Research, Inc.), Antón, Susan (New York University) and Foss, John (Soils International, Inc.)**

[84] *Rains, Stains, and Backhoes: Data Recovery at the Riot Village Site, Rio Tanama, Municipality of Arecibo, Puerto Rico*

Located 7 km inland at the headwaters of the Rio Tanama, data recovery was completed by Southeastern Archaeological Research at the Riot Site for the U.S. Army Corps of Engineers. This extensive settlement contains an Esperanza/Boca Chica component, a Cuevas/Ostiones component, and a Colonial period occupation and provides early evidence of a Cuevas Period movement of people upriver to settle the interior of Puerto Rico. Through excavation and mechanical stripping of 2000 square meters, data on subsistence, environmental reconstruction, burial practices, structure construction techniques, groundstone production, and lithic sourcing was collected for the Late Saladoid through the late Ostionoid periods.

**Carlson-Drexler, Carl (College of William and Mary), Bleed, Peter (University of Nebraska) and Scott, Douglas (NPS/MWAC)**

[247] *Contested Terrain, Congested Landscape: Memorialization of San Juan Hill*

The struggle for control of Santiago, Cuba in 1898 marked an emergent phase in modern warfare and Cuban national history. Archaeological research can amplify events and developments of fighting throughout eastern Cuba, yet must recognize that San Juan Hill alone has developed as center of memorialization and celebration. Memorials erected on San Juan Hill document shifts in memory, power, and identity throughout a century of Cuban history. Though many modern uses of the area only partially relate to the battle, reuse of parts of the battlefield has not obviated their archaeological potential but expands their content and enriches interpretive potential.

**Carpenter, John (Centro INAH-Sinaloa), Villalpando, Elisa (Centro INAH-Sonora) and Sanchez, Guadalupe (University of Arizona/Museo Mirador El Fuerte)**

[224] *Ten Years of Archaeological Investigations at La Playa, Sonora, Mexico*

Perspectives on the results of ten years of archaeological research at La Playa are offered. Current syntheses of the chronology of human utilization and adaptation in the Boquillas Valley from approximately the late Pleistocene to the mid-20th century are summarized, with an emphasis on the implications for the Early Agriculture period (ca. 1500 BC to AD 150) including the diffusion of cultigens, subsistence models, site activities, population dynamics, and cultural continuity in the Sonoran Desert region.

**Carpenter, Maureen [69] see Lewis, Brandon**

**Carr, Christopher (Arizona State University)**

[211] *To Focus on Mourners: Estimating the Sizes, Social Compositions, Functions, and Development of Ohio Hopewell Mortuary-Related Gatherings*

The standard, narrow assumption in mortuary analysis—that grave goods belong to the deceased—is expanded to also consider grave goods that are gifts from mourners to the deceased. Noting whether a socially significant artifact class is redundantly repeated within a grave allows gifts from mourners to be distinguished from property of the deceased. The principle is applied to 404 Ohio Hopewellian burials and 56 ceremonial deposits from 22 ceremonial centers sites in order to estimate the sizes, social compositions, and functions of mortuary gatherings there. Analysis also reveals theoretically expectable, developmental changes in strategies of intercommunity alliance formation over time.

**Carr, Dillon (Michigan State University)**

[226] *The Organization of Great Lakes Paleoindian Lithic Procurement Strategies*

It is evident that procuring suitable quantities of lithic raw material is a constant and reoccurring concern for prehistoric populations. However, raw material procurement is typically viewed as an episodic occurrence used to mark the initial stage of linear sequences of tool manufacture. Instead, the procurement of lithic raw materials needs to be evaluated within a multifaceted,

rather than linear, framework; one highlighting the continued importance of raw materials beyond their simple acquisition. Such a framework, employed here, examines lithic raw material procurement strategies among Great Lakes Paleoindians. This analysis demonstrates how procurement strategies may become organized around concerns external to the manufacture of stone tools. Consideration of these external concerns, including mobility or social needs, enables the formulation of questions regarding why one procurement strategy is selected over another.

**Carr, Dillon [74]** *see Boszhardt, Robert*

**Carr, Philip (University of South Alabama) and Bradbury, Andrew (Cultural Resource Analysts Inc.)**

[197] *Learning from Lithics*

One's approach to lithic analysis is contingent upon multiple factors including what the researcher wants to learn. We are interested in learning of past technologies, how these technologies were organized to meet the social and economic needs of people, and how technological change is related to long-term cultural change. Our approach is empirical and based in part on experimentation for understanding the process of lithic assemblage formation, including: raw material acquisition, tool production, use, reuse, and discard. Multiple lines of evidence are advocated for testing low-level inferences as well as more general hypotheses.

**Carr, Philip [133]** *see Bradbury, Andrew*

**Carr, Robert S. (Archaeological & Historical Conservancy)**

[248] *The Archaeology of Everglades Tree Islands*

This paper reviews the history of archaeological research in the Everglades, documents the results of those investigations and explores how the prehistoric and Seminole/Miccosuki use of tree islands has had a significant impact on their development. Tree island sites have yielded organic material yielding radiocarbon dates as early as ca. 4800 BP, indicating Archaic period habitation of the Everglades through the historic period. Maintaining and conserving tree island archaeological sites has both cultural and scientific benefits because well-preserved artifacts and ecofacts are often associated with these sites. These materials can be used to interpret broad periods of environmental history.

**Carrasco Vargas, Ramon (Proyecto Arqueológico Calakmul)**

[208] *Nuevos Datos, Nuevos Paradigmas: El Preclásico Maya*

Para finales del siglo IV a. c. se observan cambios en los asentamientos del Preclásico, cuando se inicia la construcción de imponentes basamentos en las tierras bajas. En los estudios sobre la civilización maya se define el Preclásico Tardío como el periodo en que se sientan las bases del desarrollo de los grandes centros urbanos del Clásico. A medida que han avanzado las investigaciones se comprueba que en algunas regiones los grupos asentados para finales del Preclásico Medio habían alcanzado un alto desarrollo hasta convertirse en una compleja sociedad habitando en centros urbanos.

**Carrión, José (Universidad de Murcia) and Fuentes, Noemí (Universidad de Murcia)**

[199] *Holocene Pollen Records from Mediterranean Spain: Palaeoecological Contingency Vs. the Determinism of the Climate System*

Using pollen sequences from Mediterranean Spain, we contend that conventional views of vegetation-climate response are too deterministic to explain patterns of Late Quaternary vegetation change in the region satisfactorily. In a contingent view of vegetation dynamics, subtle differences in initial conditions during full glacial and late glacial times would have tended to cascade and affect the outcome of postglacial events. Therefore, duplicating the exact sequence of vegetation types for a particular site is statistically improbable. Moreover, phenomena such as fire, herbivory, deforestation, and competitive interactions could be contingent yet remain compatible with the determinism of the climate system.

**Carroll, Alex K (University of Arizona) and Frank-Churchill, Maurice (Yomba Shoshone Tribe)**

[2] *Anchoring Epistemologies in Place: Numic Cultural Landscapes of the 1890s Ghost Dance*

During the late nineteenth century Numic-speaking shamans selected particular natural environments for the performance of the Ghost Dance, a pan-Indian revitalization movement that spread from western Nevada through the Great Plains. Collaborative analysis of

archaeological sites selected for such ritual performances reveals unique place-making practices among indigenous and largely Euro-American populations. This poster explores the spatial regimes evidenced at two cultural sites utilized by Nevada Ghost Dance participants, including the physiographic features, behavioral performance characteristics, and inscription practices. The poster shows that place-making practices rooted in distinct epistemological premises can radically shape national narratives and historic preservation.

**Carroll, Jon (Michigan State University) and Quates, Duane (Michigan State University)**

[134] *The Postmodern Hangover: Its Consequences for Archaeology and the Discipline*

The influence of postmodern thought has been both an asset and a liability for archaeologists. This paper will explore the proliferation of postmodern "theory" within anthropology as a whole. It will further discuss the ramifications of the employment of postmodern theory within the discipline. Finally, it will explore the separatist movement in archaeology and its potential consequences, while asking the question "How has postmodernism affected the way in which archaeology is valued within the discipline?"

**Carroll, Lynda (Binghamton University)**

[91] *Sowing the Seeds of Modernity: (Im)mobility, Money, and the Political Economy of Fortified Farmsteads in Transjordan, 1850-1920*

Throughout the 19th century, the Ottoman Empire initiated a series of modernization reforms; in Transjordan, these new policies led to the establishment of "fortified farmsteads." For bedouin, agricultural intensification brought severe economic consequences; where semi-nomadic pastoralism offered flexibility, sedentism and agriculture brought taxation, indebtedness, and new economic relationships with the state. After the dissolution of the Ottoman Empire, British Mandate policies once again redefined these relationships, this time under the rhetoric of nation building. This paper explores how the use of space at farmsteads were used to negotiate tribal, imperial and colonial understandings of modernity in 19th and early 20th century Transjordan.

[13] see O'Donovan, Maria

**Carter, E.F. [132]** see Oliver, J.S.

**Carter, Elizabeth [215]** see Kansa, Sarah

**Carter, Tara [85]** see Steinberg, John

**Carvajal Contreras, Diana Rocio (University of Calgary)**

[8] *Are Panamanian Pre-Columbian Shell Deposits "Shell Mounds" or "Shell-bearing Middens:" A Diachronic and Geographic Evaluation*

Archaeologists have been preoccupied for a long time about how to classify strata that contain shells in their matrices. In the 1950s "early" (7000-3000 BP) coastal sites were discovered in Panama, which have come to be known in the literature as "shell mounds" (i.e. Cerro Mangote and Monagrillo). These and all other pre-Columbian shell deposits in Panama, however, contain not only mollusks, but also a diverse vertebrate fauna, and different categories of artifacts. In this paper I argue that Panamanian sites, which contain large amounts of shell, are not shell mounds per se, but rather "shell-bearing middens" according to Widmer's terminology.

**Carvalho, Cláudia [77]** see Pereira, Edithe

**Carvino, Frank (University of Massachusetts, Boston)**

[227] *From Coast to Consumer, Artifact as Commodity*

From the mid-seventeenth century until the American Revolution, the New England colonies traded illegally with the West Indies. Through the identification of smuggled goods, in a New England context, we can study the implications of economic changes and perhaps learn why bending/breaking trade policy was a widely acceptable crime. In this paper, three values, including: "use" value, "exchange" value, and "esteem" value are identified. By examining the relationship between artifact and the individual, elements of social theory are also introduced. Through these relationships we can then ask, can consumer behavior regarding illicit goods be addressed through the artifact record?

**Casana, Jesse (University of Arkansas)**

[220] *Agricultural Intensification and Environmental Response in the Northern Levant*

Archaeological and geoarchaeological investigations in southern Turkey and western Syria have documented a rapid and fundamental transformation in the organization of land use during the

later first millennium BC and reveal how these changes impacted local environments. For nearly three millennia, agricultural activities had been largely restricted to lowland plains and river valleys. However, by the first century AD, upland areas became densely settled and were brought under cultivation. This widespread intensification of agricultural production in regions once forested or reserved for pasture helped to trigger severe soil erosion and land degradation over subsequent centuries.

**Cashion Lugo, Maria [70]** see Owsley, Douglas

**Cassiano, Gianfranco (ENAH, México)**

[173] *Poblamiento Clovis en la región de Metztitlán, Hidalgo*

En la porción montañosa del noreste del estado de Hidalgo se han explorado dos sitios con elementos en superficie que presentan muchas afinidades formales con las manifestaciones Clovis, como puntas acanaladas, raspadores, buriles y tecnología de navajas. En el sitio de Oyapa, que es el mas grande, los estudios tipológicos y la distribución espacial han permitido delimitar dos extensas áreas de talleres espacialmente segregadas una de otra adyacentes a un yacimiento de pedernal, donde se manufacturaban en una diferentes tipos de puntas bifaciales y en la otra raspadores y cepillos.

**Castellon, Blas (INAH)**

[200] *Recursos Escasos y Economías en Expansión: Avances del Proyecto Valle de Zapotitlán Salinas, Puebla*

Este proyecto tiene por objetivo definir las variantes económicas regionales de una parte de la Mixteca en el sur de Puebla en distintos periodos, que fueron parte de sistemas de intercambio comercial y cultural en el resto de Mesoamérica. El énfasis está puesto en la producción especializada de sal para el intercambio como recurso estratégico que permitió el desarrollo continuo de esta región, así como en los aspectos arqueológicos del patrón de asentamientos, los sistemas de control de agua, los artefactos y la arquitectura.

**Castillo, Luis Jaime (Univ. Catolica, Peru) [95]** *Discussant*; [115] see Hanratty, Colleen

**Castillo, Noemí (INAH)**

[200] *Proyecto Arqueológico sur del Estado de Puebla, Area Central Popoloca, Tehuacán*

Hace años, investigadores de la Dirección de Estudios Arqueológicos hemos dedicado nuestro estudio al área ocupada por los popolocas que habitaron al sur del Estado de Puebla. Estos los encontramos en la historia desde fines de periodo clásico, sometidos por los mexicas a mediados del siglo XV. Característico de los pueblos popolocas es su organización en provincias encabezadas por grandes señorios los cuales controlaban a otros, las provincias popolocas fueron Tecamachalco, Tepexi, Tehuacán en lo que hoy es Puebla y Coixtlahuaca en Oaxaca, nuestro trabajo básicamente se enfoca a Tehuacán.

**Castor, Andrew [145]** see Rice-Snow, Scott

**Caulk, Grady (USACE, Jacksonville)**

[249] *Lithics from the Ten Mile Creek Sites*

The closest source of tool quality lithic material is a hundred miles away from the Ten Mile Creek Sites. As such stone tool material is not abundant in South Florida sites. The Ten Mile Creek excavations identified changes in quantity and inter-site distribution from the Mid Archaic through the Late Prehistoric (East Okeechobee II). This paper will examine these changes from both a technological and site distribution standpoint.

**Ceballos Gallareta, Teresa [207]** see May Cia, Rossana

**Čechura, Martin [141]** see Sládek, Vladimír

**Cecil, Leslie (MURR)**

[182] *Petén Postclassic Trade Networks as Seen Through Pottery Pastes and Slips*

Until recently Postclassic trade networks in Petén, Guatemala have been relatively unexamined. However, as a result of recent excavations in the Central Petén Lakes region together with ethnohistoric data Itza and K'owoj trade networks are beginning to come to the forefront. Mineralogical and chemical (ICPS and INAA) examinations of Postclassic pottery pastes and slips suggest different trade networks in the Early and Late Postclassic periods that mirror the

socio-political complexity. These analyses also demonstrate the development of Snail Inclusion Paste ware slipped pottery and its implications for better understanding Itza and Kowoj trade before the Spanish conquest.

**Cervený, Niccole (MESA Community College)**

[196] *Implications of Natural Rock Coatings on Petroglyph Conservation, Hawai'i*

This paper explores connections between natural rock coatings formed on petroglyphs, their role as stabilizing agents, and the implication of their behavior for petroglyph conservation. Artificial compounds employed for building stone preservation are not safe for petroglyphs, because natural panels are not fresh rock. Natural silica glaze protects the host rock and petroglyph for millennia. It is analogous to treatments that integrate silica with organic materials. Natural rock coatings are the only place to develop an understanding of long-term stabilizing influences. The entire strategy of artificial treatments may be enhanced if engineered with natural analogs in mind.

[196] see *Tratebas*, Alice M.

**Chacon, Carmen [200]** see *Arana*, Raul

**Chacon Navarro, Marie Gema [162]** see *Moncel*, Marie-Hélène

**Chadwick, Oliver [50]** see *Ladefoged*, Theng

**Chalard, Pierre (INRAP)**

[74] *Chalosse Type Flint: Exploitation and Distribution of a Lithologic Marker during the Upper Paleolithic, Southern France*

Recent petroarchaeological research in the Aquitaine basin has allowed archaeologists to identify a series of lithic raw material types that can serve as tracers. This detailed geologic characterization has also narrowed the geographical area of distribution of these siliceous outcrops. Our analysis of the sources of non-local flints found in Upper Paleolithic assemblages are therefore more reliable especially with regard to reconstructing the territories exploited by hunter-gatherer groups. Technological and economic analyses of the stone tool industries (chaîne opératoire) allow a more complete understanding of the use and integration of these specific raw material sources.

[74] see *Bruxelles*, Laurent

**Chamberlain, Len (Konica Minolta)**

[62] *Cutting Edge Close Range 3D Scanning*

Get the most out of your investment in 3D scanning. New techniques, software and accessories allow users to speed the processing and increase the utilization of high density scan data. This discussion will reveal the latest technologies used by the 3D scanning industry. Primary topics include an overview of advanced techniques for: Automated Alignment, Techniques for High Resolution Color, Wear/Erosion Analysis, Morphing, Rapid Duplication, Photogrammetry, Publishing Tools. Create better quality models faster and publish them so that the entire world can marvel at your accomplishments!

**Chamberlin, Matthew (Arizona State University)**

[108] *Identity and Inequality in Puebloan Village Formation, A.D. 1000-1300*

Many archaeologists view village formation as causal in the development of group identity and social inequality. This poster suggests an alternative view, where aggregation is the outcome of a lengthy, contested process of place-making beginning in periods of dispersed settlement. In the Salinas area, differences in access to symbolic, social, and material resources demonstrate marked divisions of identity and power among dispersed settlements. The construction of masonry pueblos in the centers of these settlements reveals both the elaboration and contested nature of existing distinctions, and shows that place-making is a continual social process, of which aggregation is one strategy.

**Chamblee, John F. (University of Arizona)**

[242] *Macroregional Perspectives on Ecology and Political Economy in the Chickasawhatchee Swamp*

Variation studies among middle-range societies often consider short-term behaviors, such as leadership strategies, chiefly succession, and prestige goods exchange. Long-term trends like resettlement mobility and wear/erosion shifts in macroregional political economy are often neglected. This

paper considers long-term sources of change during the Woodland and Mississippian periods of the Chickasawhatchee Swamp by contrasting regional scale views of human/environment interactions with macroregional comparisons of settlement pattern variables – including the size, density, and duration of occupations. Results suggest a regional political economy averse to vertical integration, but where actors sometimes adopted contemporaneous political practices from neighbors to participate in the macroregional economy.

**Chambliss, Stacey (University of New Mexico)**

[27] *Pottery Production: Understanding the Emerging Cultural Landscape at Chavez-Hummingbird and Tijeras Pueblos*

Pottery production is situated within both a learning framework and a habitus that pervades the choices potters make. This framework helps define the procedural selections that show the underlying culture, the identity of the producers and any changes that have, or have not, occurred to them. A greater understanding of the cultural landscape can emerge by exploring these choices at two distinct sites in the Southwest, Chavez-Hummingbird and Tijeras Pueblos. This study used both non-destructive and destructive techniques to distinguish the changes that materialized within group identity by examining plain utility-wares from early and late period occupations.

**Chan, Keith (University of Missouri-Columbia)**

[167] *A Sacrificed Mother for the Interment of the Temple of the Fox, Buena Vista*

A partially intact mummy of a 45-50 year old woman was found at the Temple of the Fox at Buena Vista, in the fill above it. She demonstrated strong scars of pregnancy suggesting she had given birth recently and thus would have been completing 25-30 years of having and rearing children. Radiographs show three strong yearly Harris Lines in the lower limbs. These lines suggest a yearly stress that a rapidly growing juvenile managed to survive. This pattern is compared with that observed in the Middle Preceramic Site of Paloma and the Initial/Early Intermediate site of Villa El Salvador.

**Chapdelaine, Claude (Universite de Montreal)**

[235] *Domestic Life In and Around the Urban Sector of the Huacas de Moche Site, Northern Peru*

Huacas de Moche is a unique advanced urban center developed during the first centuries AD. We argue that it was the first capital of an expansionist Southern Moche State. Several residential compounds have been excavated between the two monumental buildings. Architectural features and basic activities carried out at the site or close by will be addressed in the context of exploring specialization within the organization of domestic life. Social hierarchy at the Huacas de Moche site will be examined through the definition of an urban class that played a major role in the conduct of daily State affairs. We conclude with the homogeneous internal ethnic composition of the Moche capital's population and on the integration of conquered ethnic groups within this polity.

[212] *Discussant*

**Chapman, Becky (University of Texas-Arlington)**

[117] *Preliminary Ceramic Analysis of Ritual Deposits at Blackman Eddy, Belize*

Recent excavations at Blackman Eddy, Belize, have uncovered a dense deposit of cultural material just above bedrock in Plaza B. Consisting of whole and partial vessels, faunal remains, lithics, and freshwater shells and associated with extensive burning; this primary deposit dates to the transition between the Middle and Late Preclassic, coeval with the site's earliest monumental architecture. This paper describes the ceramic assemblage and associated remains in the deposit, arguing they likely reflect a single ritual event associated with early construction efforts, exploring the use of partial vessels in ritual activity such as jar necks as censers and pot supports.

**Chapman, Bob (University of Reading)**

[211] *Paradigm Lost? The Archaeology of Death Revisited*

This paper explores three questions. First what were the disciplinary and interdisciplinary contexts in which *The Archaeology of Death* was conceived? Secondly what were the main themes highlighted by the authors and how did they relate to the context of research on mortuary practices at the time of the book's publication? Thirdly how far are these themes still of relevance for archaeological research? Emphasis here will be placed on the implications of theoretical approaches for empirical research on mortuary practices, and the need for "tacking" back and forth between different categories of archaeological evidence to evaluate hypotheses



about past societies.

[82] *Discussant*

**Charles, Douglas (Wesleyan University)**

[82] *Telling Tales of the Dead: Paradigm Compartmentalization or Dissociative Identity Disorder?*

The analysis of cemeteries represents a microcosm of archaeological practice. Prior to 1980, in a period characterized by the Saxe/Binford approach, one theoretical framework (centered on adaptation) sufficed for studying both the biological and sociocultural aspects of cemeteries. Today different approaches to these components describe the processual/postprocessual debate of the last 25 years: The skeletons are still analyzed in biological terms; but the meanings of facility preparation, grave goods, etc., are best explored through interpretive sociology. How does (or can) one researcher effectively shift between these two very distinct metaphors? Are Darwinian and Marxian paradigms mutually exclusive?

**Charles, Michael [178]** *see Bogaard, Amy*

**Charlton, Thomas [216]** *see Otis Charlton, Cynthia*

**Charlton, Thomas H. (University of Iowa), Otis Charlton, Cynthia L. and Nichols, Deborah L. (Dartmouth College)**

[49] *Two Types of Urbanism: The Teotihuacan and Aztec Occupations in the Eastern Teotihuacan Valley*

Recent research in the Aztec city-state of Otumba and in the rural dependencies of Teotihuacan has investigated the settlement structure as well as the social, economic, and political ties between the urban centers and their dependencies in each period. Differences in scale are obvious and important, but variability in structure and function is also present. Aztec urban-rural organization is strongly related to the economic, political, and religious ties between the city of Otumba and the surrounding country-side. That of Teotihuacan appears to have a similar formal structure but a varying suite of functional relationships with the rural components.

**Chartrand, Joelle [164]** *see Sunahara, Kay*

**Chatfield, Melissa (University of California, Santa Barbara)**

[4] *Indigenous Ceramic Technology of Spanish Colonial Peru*

In the archaeological record of Peru, glazed pottery is an essential temporal marker for detecting Spanish Colonial contexts. This study develops strategies for examining unglazed hybrid pottery generated by the use of indigenous potters in Spanish workshops and the lack of preferred materials in remote areas of the viceroyalty. Attention is paid to comparisons of paste technologies within the same time period as well as paste recipes within the same vessel class over many periods. In particular, this analysis evaluates the influence of glaze technology on the local potting tradition in early Spanish Colonial times of highland Peru.

**Chatters, James (TTECI)**

[65] *Huitsiniki: A Man of Special Status in the Late Archaic of Highland Michoacán*

During excavations at Alberca Rockshelter, an Archaic site in the Meseta Purépecha Michoacán, Mexico, excavators encountered an unusual human skeleton beneath an extensive pictograph panel. Osteological analysis of this individual, whose remains were radiocarbon dated at more than 5000 years, indicated an approximately 30 year-old male who exhibited light muscle development and appears to have had his maxillary teeth removed at the gumline to accommodate a ceremonial prosthesis. These findings, along with the skeleton's location, suggest the man, named by the contemporary Purépecha as Huitsiniki, held a special position in a society at the threshold of agriculture.

**Chauhan, P.R. [63]** *see Blickstein, J.I.B.*

**Chauhan, Parth (Stone Age Institute) and Patnaik, Rajeev (Panjab University)**

[63] *Faunal and Lithic Contextual Variability in the Central Narmada Basin of Peninsular India: Taphonomic and Behavioral Perspectives*

The Boulder Conglomerate (BC) in the central Narmada Basin is not as spatially-widespread as previously reported, and fossil assemblages in the region derive from several geomorphic contexts showing taphonomic bias. Therefore, we question the Mid-Pleistocene age of the BC, of

the hominin fossils within it, and the prevailing bio-stratigraphic zones. Fresh Palaeolithic artifacts are commonly found between thin calcrete horizons and thick paleosol deposits. Younger artifacts are recovered from semi-primary contexts on Deccan basalt outcrops. Evidence of raw material acquisition and reduction (throughout the basin) demonstrates marked shifts in the behavioural repertoire of Pleistocene hominins in this part of India.

**Chavez, Sergio (Central Michigan University)**

[207] *The Yaya-Mama Religious Tradition as an Antecedent of Sociopolitical Complexity in the Lake Titicaca Basin of Peru and Bolivia*

The origins of monumentality in the Lake Titicaca Basin can be traced back to the Yaya-Mama Religious Tradition (ca. 800 BC-AD 200/300). This endogenous tradition has been defined by the following major indicators of the emergence of sociopolitical complexity: Temples with sunken courts associated with stone sculpture, ritual objects involving trumpets and ceremonial burners, and iconography with supernatural indicators. This long enduring tradition represents the first public architecture in the region, where the landscape was transformed into a series of sacred centers or temple domains. Many elements continued into the later Tiahuanaco culture and some architectural features into Inca times.

**Cheetham, David (Arizona State University)**

[86] *In the Distant Land of the Olmec: A Settlement Enclave and Its Implications for San Lorenzo Horizon*

Comparative analyses (stylistic, technical, chemical) of multiple artifact classes from Canton Corralito (Chiapas) and San Lorenzo (Veracruz) indicate beyond reasonable doubt that the former site was a settlement enclave of Gulf Olmec peoples during the San Lorenzo horizon (1150-1000 BC), perhaps the first of its kind in the Americas. These new data—and those of the immediately preceding era (1250-1150 BC)—are summarized, providing a firm basis from which to explore extant models of interaction between Pacific coastal Chiapas and the Gulf Olmec region specifically, and San Lorenzo horizon Mesoamerica in general.

[136] *Discussant*; [164] *see Powis, Terry*

**Chen, Christine (Columbia University)**

[114] *Finding a Dialectic: Ethnohistorical Sources and Archaeological Data in Postclassic Central Mexico*

To develop an archaeology that permits diachronic approaches to the material data and multi-vocal conceptualizations of the past, text and artistic representations have long been used to access social behavior and daily activities that were not immediately evident in certain kinds of material remains. Yet these sources need to be carefully evaluated before they may be more broadly applied to "fill in the gaps" left by archaeological field work. This paper will take as its case study Postclassic Central Mexico to examine the production of ethnohistorical texts and discuss how to qualify them for use by archaeologists and others.

**Chenault, Mark (WestLand Resources) and Gilmore, Kevin (University of Denver)**

[106] *A Not So Clean Sweep: Implications of a Micro-artifact Assemblage from the Floor of a Basketmaker III Pithouse*

Often contained within the plaster floors of prehistoric houses is microscopic evidence of the activities of the people who once lived there. To examine the relationship between micro-artifacts and the larger artifacts of floor assemblages, the entire plaster floor of a late Basketmaker III pithouse that burned with apparently all of its contents in place was removed in 25 cm<sup>2</sup> quadrats. Flotation of a percentage of these samples resulted in recovery of micro-artifacts and other material whose distribution reflects the partitioning of domestic space for different activities and reveals the formation processes of micro-artifact floor assemblages.

**Chenault, Mark [198] *see Davis, Erin***

**Chesson, Meredith (University of Notre Dame)**

[15] *Attempting Ethnographies of Ancient Ritual Action: Ritual Spaces and Actions in EBA Communities of the Southern Levant*

The southern Levantine Early Bronze Age (c. 3600-2000 BCE) involved population aggregation into fortified settlements, agricultural intensification, widespread use of irrigation technologies, investment in community-wide storage, increasing social complexity, and transformation of social and geographic landscapes. In most EBA walled towns researchers have identified ritual compounds. While confident in identifying these spaces, researchers have been shy to discuss

the types of activities associated there, or the nature of ritual action and organizational structures in these communities. This paper synthesizes data from ritual compounds in several towns to begin a discussion of EBA rituals and religious aspects of daily life.

**Cheverud, James (Washington University)**

[82] *The Genetic Basis for Variation in Cranial Morphology and Its Consequences for Prehistoric Population Studies*

Genetic variation in cranial morphology is usually found to be at a moderate level in modern populations. Most importantly, the patterns of co-inheritance of cranial structures reflect patterns of cranial development and function. This developmental structuring of cranial variation is caused by the modular effects of genes, most gene effects being limited to specific developmental units in the skull and mandible. It is critical that this pattern of variation and covariation be accounted for in studies that try to reconstruct population genetic structure from morphological patterns found in the archeological record.

**Chiarulli, Beverly (Indiana University of PA) and Wasielewski, Amanda (Indiana University of PA)**

[189] *Transformations of the Lithic Industries at Chau Hiix*

An archaeological community, like Chau Hiix, in existence for more than 2,000 years provides an ideal case study for the investigation of technological change in stone tool manufacture. The community is located in a part of Belize in which low quality chert is abundant, yet throughout most of its history, chert tools were imported from other sites. It appears that the site residents responded to "larger events" in the Maya lowlands by increasing their use of local materials in times of crises. This paper explores this dynamic pattern and compares it to that in other sites in Northern Belize.

**Chiclana, Ivette (Universidad Nacional Autónoma de México) and Gutiérrez, Madeliz (Universidad Nacional Autónoma de México)**

[161] *Retorno a la Escena Ausente: Una Propuesta de Estudio Etnoarqueológico para Puerto Rico*

El ensayo aborda la necesidad de integrar en los estudios arqueológicos de Puerto Rico, referentes contextuales procedentes del campo de la etnología, la historia y la antropología física, con el objetivo de desarrollar una propuesta teórica-metodológica que haga viable dirigir investigaciones académicas y de salvamento en torno a las poblaciones negras de la isla.

**Chicoine, David (University of East Anglia)**

[60] *Agency, Public Spaces and Authority at Huambacho, Peru*

Public buildings are the materialization of social institutions. Accordingly, they have the potential to become agents of social control inasmuch as that they shape and constrain the ritual experience of certain individuals while promoting the authority of others. Results of recent excavations at Huambacho (800-200 BC), north-central coast of Peru, indicate that local builders drew from a stock of knowledge deeply embedded in previous cultural habits while, at the same time, a discursive attempt was made at rejecting previous religious symbols, thus giving new meaning to public architecture. I argue these developments played an active role in shaping authority.

**Chiguala, Jorge (Universidad Nacional de Trujillo)**

[149] *Advances in the Study of Urban Planning at Huacas del Sol and Luna, Moche Valley Peru*

Research conducted by Proyecto Arqueológico Huacas del Sol y Luna has revealed dense urban settlement at the Moche capital on the desert plain between the two religious monuments of that city. This settlement nucleus is comprised of complex architectural constructions that functioned as residences, administrative locales, and craft workshops. I present new data on the configuration of roads, plazas, and precincts that permit identification of socially bounded architectural units. These building blocks conform to strict spatial codes that seem to have been dictated by state-sponsored urban planning and related ideological directives.

**Childs, S. Terry (National Park Service) [127] Discussant; [88] Discussant**

**Chilton, Elizabeth S. (UMass Amherst)**

[96] *So Little Maize, So Much Time: Understanding Maize Adoption in New England*

Over the past 25 years archaeologists and archaeobotanists have improved their methods of recovering evidence for maize horticulture in New England. Flotation analysis, more careful and

fine screening of soils, and the use of AMS dating have all contributed a great deal to our knowledge of the presence and age of maize samples throughout the region. Despite these advances, New England archaeologists are still grappling with the new, but still relatively scant, evidence. Past and current debates on the subject speak to profound differences in underlying assumptions, theoretical perspectives, and the kinds of data considered relevant for interpretation.

**Chisholm, Linda [41]** *see Hoffman, Brian*

**Chmilar, Jennifer (University of California, Riverside)**

[14] *Ancient Maya Water Management at Turtle Pond, Belize*

In an environment where seasonal drought is imminent and a karstic landscape prohibits natural accumulations of perennial water, management and control of water was integral for ancient lowland Maya settlements to thrive. Excavations in June and July 2004 at Turtle Pond, Programme for Belize, Central America, explored a natural low-lying depression hypothesized to have been modified by the ancient Maya to collect, store, and distribute water. This paper will integrate both the data from excavations and sediment analysis to illustrate one way by which the ancient lowland Maya altered their environment in order to store water.

[48] *see Dunning, Nicholas P.*

**Christensen, Kim (University of California, Berkeley)**

[186] *Transgressive Social Identities: The Gage Household and Activism*

Matilda Joslyn Gage (1826-1898) was a radical activist involved in various reform movements of the nineteenth century, including those seeking female suffrage, abolition, Native American sovereignty, and church-state separation. The Gage family's Greek Revival house in upstate New York functioned as both domestic space for Gage, her husband, and their four children, and as a locus of activist activity related to these various reform movements. This paper examines Gage's, as well as the overall household's, transgressive identity and critically examines the potential of deducing such non-normative gendered, sociopolitical, and domestic identities from the household's material remains.

**Christensen, Tina [100]** *see Magne, Martin*

**Christie, Jessica (East Carolina University) and Staller, John (University of Kentucky)**

[113] *Political Authority and Sacred Space in the Ancient Andes: Exploring the Antiquity of the USHNU Concept*

Ethnohistoric accounts point to a symbolic association between political authority and sacred space. Archaeological and ethnohistoric evidence are presented on the ushnu concept. These lines of evidence suggest that the Inka may have been recreating an ancient concept to serve their religious interests, political ends as well as sanctify their right to rule. Archaeological evidence is then presented to show that the elementary architectural forms found at ushnus were involved in the transference of fluids, bringing meaning to the surrounding geography and reckoning temporal cycles and are of considerable antiquity.

**Christy, Deborah (Penn State University)**

[42] *Remote Sensing of Historic Georgia Cemeteries*

Using magnetometry and electrical resistivity equipment, Civil War era and Cherokee removal era cemeteries in northeast Georgia were surveyed with the goal of determining if such equipment was efficient at locating unmarked graves. In addition, the types of graves—individual burials, mass graves, or slot-trench burials—were in question, and the survey sought to determine if such distinctions could be made remotely, and if the geology of this region was conducive to such studies. Initial results are positive and indicate that these techniques have much to offer mortuary archaeologists in terms of locating and characterizing burials not otherwise easily examined.

**Church, Michael [198]** *see Gallison, Jim; [198] see Ramirez, Nicole*

**Church, Warren [10]** *see Bracamonte Ganoza, Florencia*

**Church, Warren B. (Columbus State University) and Nystrom, Kenneth C. (University of New Mexico)**

[51] *From Bones to Boundaries: Bioarchaeological Contributions to Understanding Preincaic Chachapoyas and Eastern Slope Cultural Development*

In the extreme northeastern Peruvian Andes, scholars associate the Late Intermediate Period

unity of architectural, ceramic, and artistic attributes with a Chachapoya "culture area" that they alternately characterize as an autonomous state, a confederation of small independent polities, or an array of highland frontier colonies. We utilize population genetic modeling and craniometric data from three mortuary contexts in conjunction with archaeological data to locate intra-regional social boundaries and measure external gene flow. Such bioarchaeological evidence helps illuminate Chachapoya preincaic sociopolitical organization and interregional interaction.

**Cid-Aguero, Pedro (University of Connecticut)**

[65] *Elemental Chemical Analysis of Cliff Paintings in Parangaricutiro, Mexico*

Field elemental chemical analysis on cliff paintings by using an Innov-X handheld XRF Analyzer was performed. This non-destructive technique proved to be useful in the determination of the main elements component of each color used by the artists. Two types of cliff paintings were analyzed and compared with natural background rock. The red pigment was found to be mainly based in Fe compounds plus traces of Ag, Co, Cu, Mn, Ti, and Zn, while the white pigment was determined to be based in Ca compounds with traces of Fe, Ag, Co, Cu, Mn, Mo, Ti, and Zn.

**Cinquino, Michael [35] see Hanley, Robert**

**Cinquino, Michael A (Panamerican Consultants), Pumarada, Luis (Arqueologia Industrial Caribena), Hayward, Michele H (Panamerican Consultants) and Schieppati, Frank (Panamerican Consultants)**

[176] *How to Make a Living from Sugar, Molasses and Rum on Puerto Rico in the 1800s and Early 1900s*

Employing a combination of archival, ground penetrating radar and field excavation methods, Panamerican Consultants, Inc. was successful in locating and documenting several structural features related to the La Monserrate sugar factory. These include the remains of a Jamaica Train with its chimney and what appears to be a pedestal for a mill. The Puerto Rico Sewer and Water Authority is constructing a reservoir complex near Naguabo on the east coast of Puerto Rico, that will shortly place the features at the bottom of the reservoir. Our understanding of La Monserrate's operation is enhanced by placing it within the wider sociopolitical and economic framework of Puerto Rico's sugar production in the 1800s and early 1900s.

**Ciolek-Torrello, Richard (Statistical Research) and Douglass, John (Statistical Research)**

[36] *Life at the Nexus of the Wetlands and Coastal Prairie, West Los Angeles*

Statistical Research, Inc. has been conducting excavations in the Ballona Wetlands area for the past 15 years. Our previous work was based primarily on the assumption that human occupation of the area was focused on the wetlands and their resources. Recent investigations at two Intermediate period sites, however, reveal that the most widespread occupation of the Ballona area occurred during a brief period when climatic conditions made the surrounding coastal prairie most productive for human habitation. The evidence gathered from these investigations may account for what previously appeared to be an anomalous settlement pattern during the Intermediate period.

**Cipolla, Craig N. (University of Pennsylvania)**

[186] *Colonialism, Social Identity and Habitus: An Archaeology of Everyday Life on the Eastern Pequot Reservation, North Stonington, Connecticut*

Is the notion of social identity still useful for archaeologists interested in piecing together colonial pasts or is it merely a reflection of contemporary politics based on essentialist models of thinking? To further refine the concept of social identity and assess its utility for imbuing archaeological residues with meaning, I examine a case study from two household-faunal assemblages on the Eastern Pequot Reservation in North Stonington, Connecticut. I discuss everyday practices as key components of colonial processes on the 19th-century reservation by relying on the concept of ethnic identity and relating it to habitus.

**Civitello, Jamie (Valles Caldera National Preserve)**

[39] *Valle Toledo Prescribed Burn: Site Discovery Issues and Fire Effects to Obsidian*

The Valles Caldera National Preserve recently conducted a prescribed burn in the Valle Toledo, one of the large high-elevation grassland valleys that characterize the caldera. Numerous undocumented archaeological deposits occur within the 1900acre burn area, providing an opportunity to monitor fire effects and to assess site discovery methods in a grassland setting. A pre-burn sample survey documented cultural material as well as surface visibility. Pre-burn results will be compared to 100 percent post-burn survey results. Fire effects to obsidian are

documented within artifact monitoring plots, with obsidian samples exposed to fire under varying biomass loads and effective temperatures.

[39] *see Soto, Ricci*

**Claassen, Cheryl (Appalachian State University)**

[205] *Archaic Ritual Caves in the U.S.*

It is the contention of this paper that caves were a key feature in a sacred landscape of the Archaic period. Based on criteria for ritual offerings found in recent Mesoamerican practices, the archaeological records of Dust Cave, Russel Cave, Mammoth Cave and Wyandotte Cave are examined for similar ritual evidence. Emphasis is placed on the faunal remains found, particularly the characteristics of incompleteness, small taxa, calcination, high species diversity and low MNI, even NISP.

**Clark, Geoffrey [197]** *see Shott, Michael*; **[80]** *see Passick, Todd*

**Clark, Jeffery J. [3]** *see Hill, Brett*

**Clark, John (BYU)**

[205] *Creation of a Tradition: Genesis of Mesoamerica's Cosmos*

The Olmecs were the first civilization of Mesoamerica and are credited with the first great art style and religion, including a pantheon of core deities. The archaeological clues available indicate that many Mesoamerican beliefs about the nature and shape of the universe believed by Postclassic peoples go back at least two millennia to Olmec times. This same evidence reveals that not all concepts were given durable expression from the beginning. I consider the possible development of Olmec cosmology from earlier tribal roots. Important questions are, What beliefs and practices persisted from pre-Olmec times, and which were ones added later? In short, what is the history of the core concepts of Mesoamerican cosmology?

**[86]** *Discussant*; **[9]** *Discussant*

**Clark, Tiffany (Arizona State University) and Creel, Darrell**

[75] *Sourcing Chupadero Black-on-white Pottery from the Post-A.D. 1130 Mimbres Region, Southwestern New Mexico*

Populations in southwest New Mexico experienced significant economic and social reorganization in the period following AD 1130. Accompanying these changes was an increase in interregional interaction indicated by the appearance of a number of non-local pottery types at sites in the Mimbres region. Using data from neutron activation analysis, this study explores the distribution systems that were associated with one of the most prevalent of these imported ceramics, Chupadero Black-on-white. Results of the compositional analysis suggest that Postclassic exchange networks were not spatially uniform across the study area, but rather involved the establishment of diverse sets of long-distance social relations.

**Clarke, Andrew [109]** *see Tuross, Noreen*

**Clarke, David (University of Montana)**

[36] *A Glimpse of the Socioeconomic Role of Lithics among Complex Hunter-Gatherers from the Bridge River Site, British Columbia, Canada*

The Bridge River Site located in south-central British Columbia, Canada is a complex hunter-gatherer site on the Canadian Plateau. The site's 80 pithouses and over 150 external pit features have been extensively dated between 1800-200 BP. The 2003 and 2004 field seasons yielded 90 radiocarbon dates as well as 22,270 lithic artifacts, including 1,551 tools. This paper examines the role of lithic tools in the socioeconomic evolution of the site. Further, this study will provide insight into the socioeconomic role of stone tools among complex hunter-gatherers of North America's Pacific Northwest region.

**Clarke, David [133]** *see Prentiss, William*; **[133]** *see Hiscock, Peter*

**Clayton, Sarah C. (Arizona State University)**

[87] *Hinterland Diversity and Ancient Maya Political Economy in Northwestern Belize*

Archaeological research on complex societies frequently focuses on elite-commoner relations in political-economic systems. Unfortunately, the roles of commoners are often obfuscated by a tendency to view them as relatively homogenous. In this paper I compare two small settlements located near the site of Blue Creek. Patterns in architecture and artifact distribution reveal significant differences within each settlement. This variation may be a function of heterogeneity

in resource distribution, modes of social organization, and degrees of integration with political centers. The research demonstrates that rural communities had diverse roles in regional political economies, and sheds some light on Maya socioeconomic organization.

**Clellow, Jr., C. William [203]** *see Tabares, A. Natasha*

**Close, Angela (University of Washington)**

[59] *Congruities and Incongruities between the Middle Paleolithic/MSA of Northern Africa and Sub-Saharan Africa*

The Middle (and Upper) Paleolithic of northern Africa correspond in age and, to a large extent, in lithic technology to the Middle Stone Age of sub-Saharan Africa. However, archaeological approaches to the two have been very different. This is partly because of differences in the history of archaeological research. However, even now, when we all view the period as that of the emergence of modern humans, differences remain. This is because the battle over modern behaviour did not occur in northern Africa (where all of the human remains associated with the Middle/Upper Paleolithic are modern).

**Cobb, Charles (Binghamton University) and Miroff, Laurie (Binghamton University)**

[91] *From Frontier to Border along the Iroquois Southern Door*

The Upper Susquehanna drainage in New York assumed increasingly greater prominence as a borderland during the eighteenth century. Contrary to many studies that view borders as Colonial impositions, the creation of this borderland involved long-term strategies on the part of Native American as well as Euro-American powers. Reacting to Colonial encroachments from south and east, the Iroquois populated the valley with multi-ethnic towns consisting of both refugee tribes from the Atlantic seaboard and Iroquois. These actions created a distinctive zone of creolized communities, and reflected the Iroquois ability to play off English notions of demarcating the landscape.

**Cobb, Charles [54]** *see Giles, Bretton*

**Cobean, Robert (INAH, México), Mastache, Alba Guadalupe ((Deceased)) and Healan, Dan (Tulane University)**

[173] *The Beginnings of Tula's Ancient City*

Recent INAH excavations at the plaza known as Tula Chico, which constituted the initial ceremonial precinct for Tula's city, have recovered relief sculptures with iconography suggesting that Tula's royal dynasty was founded during the seventh century AD. Some interpretations concerning Tula Chico and urban processes at Tula will be discussed.

**Cobos, Rafael (Universidad Autonoma de Yucatan)**

[221] *The Colonnaded Halls of Tula and Chichen Itza: Morphological and Functional Considerations*

The colonnaded halls of Tula and Chichen Itza are important architectural features of both ancient cities. The colonnaded halls of Tula and Chichen Itza are associated with the main edifices located at the site centers of both settlements. Their geographical location and internal morphology have led several researchers to assign them different functions. For instance, the colonnaded halls of both cities might have served either administrative or public functions. Few scholars, however, suggest that the colonnaded halls had a semi-private function. Archaeological and spatial evidence is reviewed in this paper in the light of new data and interpretations derived from recent studies of the colonnaded halls of Tula and Chichen Itza. Based upon this review, an alternative functional interpretation is suggested for these enigmatic structures.

**Cochran, Jennifer (University of Texas at Arlington)**

[238] *A Diachronic Examination of Shell Artifacts from the Site of Blackman Eddy, Belize*

Marine shell ornaments have been documented as an important commodity in the Maya Lowlands from the Early Preclassic to the Colonial period. Marine shell species and ornament types were variable through time; however, the importance of this long distance trade item remained consistent. Evidence from Blackman Eddy, Belize, suggests that marine shell use remained significant through 2000 years of occupation. This paper examines marine shell ornaments in a diachronic fashion at Blackman Eddy and explores patterns behind the symbolic use of marine shell as prestige items and ornamentation within ancient Maya society.

**Cochran, Jennifer [174]** *see Garber, James*

**Cohen, Amanda (University of Oklahoma)**

[7] *"Ritualization" in Early Village Society: The Case of the Lake Titicaca Basin Formative*  
 Globally, early village societies are characterized by community sponsored ritual activity. Ritual behavior is detectable in the construction of public spaces that were used for community-wide gatherings and ceremonies. Several interpretations of the relationship between emerging religious institutions and the establishment of social inequality have been proposed. Does religious architecture, the central space of these religious traditions, become increasingly specialized through time? Or does public space become less focused on ceremonial behavior as social complexity develops? The relative "ritualization" of public spaces through time will be assessed using data from the Lake Titicaca Basin and other early village societies.

**Cohen, Andrew (Brandeis University) and Rowan, Yorke (University of Notre Dame)**

[15] *Archaeological Understandings of Religion and Ritual Practice*  
 Many archaeologists continue to view religion as a closed system that existed largely in the minds of the ancient actors. Although an understandably cautious perspective toward a phenomenon as broadly defined as "religion," archaeologists do acknowledge evidence for the existence of many practices which do not fit comfortably within existing categories of analysis. By redefining religion as one potential aspect inherent in many domains of social practice, numerous artifacts and archaeological contexts may shed light on ancient religious thought and practice. In this paper, we address some methodological and theoretical issues confronting archaeological understandings of religion and ritual practice.

**Cohen, Claire (Institute of Archaeology, UCL), Rehren, Thilo (Institute of Archaeology, UCL) and Van Buren, Mary (Colorado State University)**

[69] *Indigenous Bolivian Silver-smelting Using Huayrachina Furnaces: New Evidence Revealed*  
 New ethnographic research by the Proyecto Arqueológico Porco-Potosí, Bolivia, has revealed that current silver-smelting is occurring, a practice last recorded over a century ago. Research has shown that the Bolivian man responsible, Carlos Cuiza, may be using a hybrid technique of those used at the time of colonization. This paper will investigate the technological processes in the huayrachina, wind powered furnaces, combining ethnographic observations with scientific analyses of debris from the process. Using the ethnographic material as a comparable basis upon which recently excavated archaeological material can be better understood and to determine the influence of European techniques on indigenous smelting.

**Cohen, David (University of California, Berkeley)**

[186] *Does It Matter if They Made Bigger Beads?: Group Identities in the Social Landscape of Southern Africa*

Archaeological studies of the past ~2000 years in southern Africa look at participation in the social landscape between foragers, herders and agropastoralists based on assumptions that cultural identities can be equated with particular types of material culture. In many cases this exercise is not clearly applicable in associating cultural materials and practices with distinct groups. What remains are questions of the utility of identifying cultural groups; the possible unacknowledged existence of class structures; recognition of a range of cultural practices that span different lifeways; and how this all gets tied up in modern cultural politics and the idea of ethnicity.

**Colas, Pierre (University of Bonn) and Reeder, Philip (University South Florida)**

[182] *The Cave-Ceramics in the Pits on the Northern Vaca Plateau, Belize*  
 The Northern Vaca Plateau Geoarchaeological Project has explored more than 200 caves north of Caracol and disclosed a variety of human remains from Classic Maya culture. Among the findings are several Late Classic polychrome ceramics that can be identified by type: variety and paleographic dating methods as deriving from the Naranjo-Tikal region. These ceramics might have been acquired by the local population from merchants on the way to Caracol and placed in the cave during a local pilgrimage.

**Cole, David [44]** see *Fayek, Mostafa*

**Coleman, Drew [82]** see *Perry, Megan*

**Colledge, Susan [71]** see *Moore, Andrew*



**Collins, Angela (University of Iowa)**[103] *Revealing Wheel-thrown Gray Ware in Batavo-Romano Netherlands*

Wheel-thrown "Batavian" gray ware found in the Batavian region of Germania inferior (in modern day southeastern Netherlands) is not well understood by archaeologists. Dated from the first to the third centuries AD these pots have the potential to elucidate social relations between the local Batavians and the colonizing Romans. I present the results of stylistic and technological analyses in order to discern ranges of variation in raw material and firing method. A high degree of variation in gray ware manufacture and firing procedure implies pottery hybridization that resembles Roman forms yet retains Batavian stylistic elements.

**Collins, Lori D. (University of South Florida) and Wheeler, Ryan (Florida Bureau of Archaeological Research)**[248] *3D Laser Scanning and Analysis of the Miami Circle at Brickell Point Site, Florida*

Archaeological monitoring during a construction project in downtown Miami in 1998 led to the discovery of an 11 m diameter circle of basins carved into oolitic limestone and overlain with midden deposits. The discovery of the Miami Circle led to great speculation regarding its origin and function. To better document and interpret the feature laser scanning and conventional surveying techniques were used to develop a virtual GIS model of the complicated Miami Circle feature. The GIS data allowed for creation of a contour map, terrain model, analysis of artifact distribution, and comparison with a recently discovered circular feature located nearby.

[248] see Weisman, Brent R.; [42] see Branas, Chris

Collins, Michael B. [138] see Wernecke, D. Clark

**Colten, Roger (Peabody Museum, Yale University) and Newman, Elizabeth Terese (Yale University)**[166] *Prehistoric Fauna from the South Coast of Cuba*

In 1956 and 1957 Paul Hahn excavated at seven sites in the Las Villas, Camaguey, and Oriente Provinces of Cuba. His research focused on developing a chronological sequence for the non-ceramic cultures in those areas, which he published in 1965. Hahn's excavations yielded a significant assemblage of vertebrate faunal material which has been in storage at the Peabody Museum for nearly 50 years. This paper is an analysis of a portion of this faunal collection focusing on the ecological and economic implications of the assemblage. This is one of the few faunal studies from this region of the Caribbean.

Colten, Roger [166] see DaRos, Maureen

**Colwell-Chanthaphonh, Chip (Center for Desert Archaeology), Altaha, Mark (White Mountain Apache Tribe) and Welch, John R. (Simon Fraser University)**[171] *Memories and Artifacts: Correlating Multiple Perspectives on the Battle of Cibecue*

The 1881 Battle of Cibecue began as a response by Apache warriors and Apache scouts to the US Army's arrest of a medicine man. The fight resulted in Apache and cavalry casualties and continues to affect the Cibecue community and outsiders' perspectives thereon. During a recent study of Apache memories of the Battle, the White Mountain Apache Tribe obtained a series of artifacts illicitly removed from the suspected Battle site. Our analyses of the artifacts in the context of Apache memories and Army documents shed light on the fight and on interpretations derived from archaeology and oral traditions

**Comendador, Amy**[50] *Measuring Variability in Aggregate-Scale Artifacts on Easter Island*

Studies of prehistoric settlement patterns require detailed measurements of stylistic, temporal, technical, functional and spatial variability of discrete and aggregate-scale artifacts. Although the archaeology of Easter Island has been extensively surveyed, the results are limited in use due to the way in which aggregate-scale artifacts were described. Primarily based on modal and ethnohistoric type-descriptions, much of the variability within aggregate scale artifacts is lumped into a few, inconsistent and interpretative groups. A critical re-examination of previously collected survey data for the island shows that new classifications and new archaeological surveys are required.

**Conard, Nicholas (University of Tübingen) and Marks, Anthony (Southern Methodist University)**[59] *New Research on the MSA of Mumba Cave, Tanzania*

Since the excavation of Mumba Cave in the 1930s by Margit Kohl-Larsen, the site has often

been cited in the archaeological literature. Two unpublished doctoral dissertations were written about the lithics, but the results are out-of-date. Otherwise, a few articles in journals address some aspects of this important East African site. All work until now was based on selected samples from a lithic assemblage containing 300,000 artifacts from the MSA and LSA, as well as numerous organic artifacts. This paper presents a re-analysis of the important lithic and organic artifact assemblages from Mumba. A series of new dates is presented.

**Conard, Nicholas [143]** *see Schiegl, Solveig*; **[59]** *see Kandel, Andrew*

**Conides, Cynthia Alexandria (Buffalo State College)**

**[147]** *Figurines in Action: Contextualizing the Butterfly Personage at Teotihuacan*  
Current art historical and anthropological narrative theories provide a sound basis for interpreting the complex iconography of Teotihuacan figurines. Additionally, pictorial ceramics produced within the ancient city provide enduring evidence of active contexts, of socially significant performances and ritual activities in which the figures were engaged. Utilizing these resources, this paper reexamines the iconography of butterfly personages, one of the most enduring images in Teotihuacan portable arts. Butterfly personages emerge as members of an important institution within Teotihuacan society, ranked according to activities, and functioning within the realm of a popular religion that centered on a butterfly deity.

**Conkey, Margaret W. (UC, Berkeley)**

**[206]** *And the Transition to Gender? Diet, Bone Chemistry, and Gendered Implications*  
Unbeknownst to many, Doug Price was a participant at the 1988 conference that led to the edited volume, *Engendering Archaeology* (Gero and Conkey 1991), for which he wrote and presented a paper on Gender and Diet. His case study was the Archaic of the U.S. Midwest. At the time, Price suggested that "one of the reasons for distinguishing male and female diets in the past is to better understand the human adaptation." He concluded that (unpublished) paper with the statement that "certainly gender is an important dimension of human variability in the past we are beginning to look into. The next ten years should open the door." In this paper, I will not only reveal Price's early engagement with gender issues, but look at those proverbial "next ten years" and see to what extent, how, and with what implications his work has/has not continued along these lines, and how this relates to the wider field of an engendered archaeology since 1988.

**[83]** *Discussant*

**Conlee, Christina (Texas State University)**

**[116]** *The Emergence of Non-Ceremonial Based Urbanism in Late Prehispanic Nasca*  
A new social landscape developed in the Nasca region during late prehispanic times. Part of this transformation included the predominance of large, agglutinated, internally differentiated settlements, a change from previous periods when domestic sites were small, and only ceremonial centers were built on a large scale. The shift away from ceremonial sites as the focus of aggregation and centralization suggests a change in the role of religion as an integrating force. The emergence of a new type of urbanism was likely shaped by a shift in the religious ideology, an expansion of economic networks, and a multiplicity of social identities.

**[51]** *see Abraham, Sarah*

**Connell, Samuel (JPAC CIL & UCLA)**

**[77]** *Comparative Geophysical Work: Vietnamese Highlands and the Ecuadorian Sierra*  
This poster compares and contrasts geophysical survey and ground-truthing in the Vietnamese highlands and Ecuadorian sierra during 2005. By emphasizing geomorphological and target conditions, results from GPR, magnetometry, and resistivity are overlapped using GIS to identify anomalies. These case studies explain how burial features and architecture are identified that otherwise would have been missed using one technique.

**Connell, Samuel [60]** *see Gifford, Chad*; **[69]** *see Lewis, Brandon*

**Conolly, James (Trent University) and Dougherty, Kate (Trent University)**

**[220]** *Agricultural Intensification and Inheritance Rules in the Insular Aegean: A Simulation of Emergent Risk-Avoidance Strategies*

The landscapes of many Aegean islands consist of complex systems of (abandoned) fieldwalls and terraces that partition most or all productive and marginally productive land. Historical and archaeological evidence suggests that these systems were intensively farmed and organised at the household level of production. A critical feature of household-based agriculture is the form of inheritance for landholdings and in this paper we focus on the well-documented phenomenon

of partible inheritance in the 'traditional' (i.e., pre-Modern) Aegean. Using an agent-based model, we test the hypothesis that diversified and intensive farming coupled with partible inheritance acts as a risk-avoidance strategy in marginal climates.

**Conrad, Geoffrey (Indiana University), Beeker, Charles (Indiana University) and Foster, John (California State Parks)**

[52] *Compositional Analysis of Ceramics from La Aleta, Dominican Republic*

La Aleta is a major Taino site that we believe served as a regional ceremonial center. The site's features include a flooded sinkhole and four stone-line plazas of the type used during the contact period for ball games and dances. This paper uses data from instrumental neutron activation analysis (INAA) of ceramics from the sinkhole and plazas to evaluate the hypotheses about La Aleta's importance and internal organization.

**Conrow, Michael (LaPorta and Associates, L.L.C., Geological Consultants), LaPorta, Philip (Graduate School of City University of New York and LaPorta and Associates, LLC) and Minchak, Scott (Texas A&M University and LaPorta and Associates, LLC)**

[74] *The Life History of Prehistoric Quarry Instruments Excavated from the Skene Motion and Workshop: Hartford Basin, Champlain Valley, New York*

The Skene quarry (motion) and contiguous Workshop yield particular insights into the types of instruments necessary for the extraction of cherts from low inclination beds, and processing of extracted ore in a setting deficient in abundant raw materials necessary for the manufacturing of quarry tools. The Skene quarry (zone of extraction) typically yields numerous exhausted quarry implements, however less than expected numbers were recovered. The Workshop (zone of beneficiation) associated with the quarry, revealed a wealth of recycled quarry and processing instruments including wedges and debris resulting from the refashioning of mining tools into forms necessary for ore processing.

**Constan, Connie [129]** see Boyd, Jennifer

**Contreras, Daniel (Stanford University)**

[60] *Machiavellian Agents and Created Structures: Defining Setting and Understanding Landscape Engineering at Chavín de Huántar*

At Chavín de Huántar, research has focused on monumental architecture, but the physical and conceptual extents of the site need to be construed more broadly. Geomorphologic survey suggests that there is more to Chavín than immediately evident. Moreover, the area's geomorphologic dynamism was a key element in decision-making processes involved in the site's location, construction, and expansion. Engineering at Chavín centered on monumental architecture in the site core, but also included land reclamation, river canalization, massive terracing, and environmental risk management in the surrounding area. These projects suggest that the structurative possibilities of setting were understood and consciously manipulated by Chavín's designers.

[113] see Rick, John

**Cook, Anita (Catholic University) and Tung, Tiffany (Vanderbilt University)**

[211] *Expressing Life through Death: Mortuary Rituals in Huari Society*

The social dimensions of life and death are always closely intertwined, yet if we assume that the structure of everyday lived experience helps negotiate the conceptions and material expressions of the body, selfhood and society, then inspiration from living contexts and early contact sources can shed light on the significance of ancient mortuary places. During the rise of the Huari Empire dramatic changes occurred in burial practices and in the treatment of the body. We consider both the skeletal and material remains and find their spatial expression closely associated with the house. We address how mourners author the transcendence of past community members into objects of veneration and sources of ancestral protection, inspiration and guidance.

**Cook, Anita [212]** see Blacker, Juan Carlos; [219] see Szymczak, Joseph

**Cook, Della (Indiana University)**

[211] *Mortuary Practices and the Skeleton: Is Status Truly Written on the Body?*

When *The Archaeology of Death* was published, most applications of data from human remains to understanding mortuary practices considered just age and sex of the deceased. Life history variables such as developmental stability, nutrition, deformity and disability have the potential to enrich our understanding of social distinctions. This review questions why this promise remains

largely unrealized.

**Cook, Della [189]** see Wrobel, Gabriel; **[80]** see Salter-Pedersen, Ellen

**Cook, Robert (Ohio State University)**

[155] *Fort Ancient Household and Corporate Group Formation*

This paper utilizes mortuary and residential data sets to define a model of Middle Fort Ancient (A.D. 1200 — 1400) household and corporate group formation and structure, using the Sun Watch site as a case study. The Saxe/Goldstein mortuary model for identifying corporate groups is used to locate lineal descent. Specifically, spatially restricted row patterns — common in rural Mississippian cemeteries — are identified. Row formation is examined through a consideration of burial frequency and the occurrence of diagnostic artifacts. Burial rows are then linked with individual households, whose histories are examined using radiometric, architectural, and diagnostic artifact and feature attributes.

**Cooke, Colin (University of Pittsburgh), Abbott, Mark (University of Pittsburgh) and Wolfe, Alexander (University of Alberta)**

[204] *Lake Sediment Archives of Smelting from Peru: Preliminary Results*

Natural archives are widely used as long-term records of atmospheric pollution. We collected lake sediment cores to determine the presence or absence of smelting in various regions of Peru. During smelting, metals are volatilized and subsequently, deposited in lake environments. During the summer of 2005, fieldwork was undertaken in northern and central Peru to collect lake sediment cores from contemporary and historic mining districts. These lake sediments were subsequently analysed for metal pollutants. Here, we will present our results from both northern and central Peru in an attempt to constrain both the onset and magnitude of pre-Hispanic metallurgical activities.

**Cooke, Richard (Smithsonian Tropical Research Institute (Panama))**

[119] *The Origin and Antiquity of Sumptuary and Costume Goods in Panama and Their Impact on Pre-Hispanic Social Organizations*

Until ~2500 rcya ago Panama harboured small social groups with a simple material culture even though farming was established there long before. Subsequently, as new technologies appear and populations congregate in villages, the mortuary record reflects occupational, status, and rank distinctions. Symptomatic of such developments are sumptuary and costume items: lapidary work, tumbaga, marine shells and animal products. Inspired by Warwick Bray's elucidation of ancient and integrated exchange routes over an isthmian/Colombian "province," I inquire how new field data from Panama concerning these crafts and exchange inform us about the antiquity, breadth and complexity of social relations across this region.

**Coolidge, Sara (Independent)**

[218] *Honoring Death through Art and Stone: Interpretations of Pre-Columbian Stone Pillars of Central America*

Stone pillars are one of the most common and distinctive features of Chiriquí period cemeteries in southern Costa Rica and western Panama. Past research, however, yields neither detailed descriptions of their form nor any analytical interpretation of their function. In 2004 we completed a thorough examination of pillars at the Panteón de la Reina, a high-status cemetery site in southern Costa Rica. Results indicate that pillars are directly associated with mortuary architecture and mark divisions between groups of graves. Uniform features on pillars suggest that pillars were possibly used as pegged bases for statues made from perishable materials.

**Coones, Julie (University of Houston)**

[139] *A Test of Cardinal Directionality in Lowland Maya Burials*

The centrality of the seven cardinal directions in Maya thought and worldview has been established. However, the investigation of cardinal directionality as a determinant in burial practices has not received abundant investigation. My hypothesis proposes cardinal directionality as a determinant in Lowland Maya burial practices. The focus of this research includes three lowland Maya sites: Cuello, K'axob, and Copan, representing both Pre-Classic and Classic chronology. Possible site patterns will be investigated through comparison of various statistical variables, including age, sex, structure, interment, and chronology. Findings will advance understanding of the importance of cardinal directions in Maya belief systems.

**Cooney, Gabriel (School of Archaeology, UCD Dublin)**

[30] *Stones and Stories Out of Place: The Transformative Role of Stone Axe Quarry Sites*

Many archaeological discussions written in different theoretical contexts tend to marginalize both

the place and role of stone axe quarry sites during the Neolithic in Britain and Ireland. They are seen as peripheral in landscape and settlement terms and simply as the beginning stage of life in terms of the object biography approach. Excavation of the quarry site at Eagle's Nest, Lambay and wider re-consideration of other relevant quarry sites in Ireland and Britain suggests that we need to radically reconsider the social role and significance of such places for the people who made them.

**Cooney, Gabriel (School of Archaeology, UCD Dublin)**

[19] *Into the West: The Spread of Agriculture and the Beginnings of the Neolithic in Ireland and Western Britain*

The character of the archaeological evidence in Ireland led to demic diffusion continuing to be seen as a useful explanation for agricultural origins when it had become largely redundant for much of Britain. The concept of a slow take off of farming also appears to be of less relevance in an Irish context. But we need to critically consider these island-wide generalizations and the biomolecular, genetic and environmental evidence that supports the new explanatory climate. Despite the range and diversity of relevant evidence many discussions of the transition still tend to focus on one or other of the data sets, creating fragmentary and parallel narratives, quite often constructed at very different geographical scales, to answer different questions. It is argued here that should see the transition as a social process involving interwoven strands of influence and change.

**Cooper, Charlotte [239]** see *Gifford-Gonzalez, Diane*

**Cooper, D. Randall [133]** see *Bradbury, Andrew*

**Cooper, H. Kory (University of Alberta)**

[203] *The Use of Native Copper in Far Northwestern North America*

Prior to the introduction of trade copper in northwestern North America in the 18th century, native copper (98-99+% pure) was highly prized among indigenous groups and circulated in an exchange network distributing prestige goods throughout the region. Often associated with personal prestige, copper had functional, economic, social, and symbolic value. Two Athapaskan groups, the Ahtna of southeastern mainland Alaska and the Tutchone of southwestern Yukon, are often credited as the main suppliers of copper in the region. This paper presents an overview of the use of native copper within the region based on archaeological, linguistic, ethnographic and historic data.

**Cooper, Jago (Institute of Archaeology, UCL, U.K.)**

[112] *Cultural Islands in the Caribbean: An Indigenous Perspective from Cuba*

This paper will focus on recent collaborative fieldwork conducted by the Institute of Archaeology, University College London and the Cuban Ministry of Science, Technology and Environment. Los Buchillonos is an extremely well preserved Taino village submerged off the north coast of Cuba. A series of excavations of waterlogged deposits have been carried out at Los Buchillonos and extensive island surveys have been conducted to locate contemporaneous sites in the Bahama Channel. This paper will explore how results from this fieldwork have provided insights into indigenous interactions in northern Cuba and provided a framework for the reconstruction of "Cultural Islands in the Caribbean."

**Cooper, Jago [112]** see *Valcárcel-Rojas, Roberto*; [16] see *Martín-Torres, Marcos*

**Cooper, Judith (Southern Methodist University) and Laughlin, John (Office of the Wyoming State Archaeologist)**

[135] *Testing a GIS-based Model for Lithic Refitting: An Example from Barger Gulch Locality B*

To many, the benefits of refitting are offset by the time such studies entail. Cooper and Qiu recently proposed a timesaving approach, using a GIS-based model to rank artifacts by their likelihood of refitting a target artifact. In tests, the model identified known refits in a chipping-cluster faster than expected by traditional refitting. This study tests the model in another context, using the Folsom-age Barger Gulch Locality B (5GA195) assemblage. We test whether the Cooper/Qiu model can (1) replicate known refits in a site with different spatial patterning and (2) identify new refits. This study helps gauge the model's robustness.

**Cooper, Martin (Archaeological Services Inc.)**

[241] *Etched In Stone: Ground Stone As a Symbolic Medium*

Occasionally artistic renderings on stone appear in the archaeological record providing a rare

glimpse into the abstractions and ideas of their creators. This paper reviews the occurrences of these objects in the Great Lakes Region and attempts to identify stylistic patterns and their associated symbolic meaning. These are viewed within the context of both the anthropological and aboriginal iconographic interpretations of pictographs and petroglyphs found through out the Canadian Shield.

**Copeland, Sandi (Rutgers University)**

[143] *Plant Foods in "Arid" Versus "Moist" Savannas, and the Relevance of Chimpanzees as Ecological Models for Early Hominins*

There is a fundamental difference between "moist savannas" in which some modern chimpanzees live, and "arid savannas" which are not inhabited by chimpanzees, but in which some East African Plio-Pleistocene hominins lived. A study of "arid savannas" in northern Tanzania shows that common hominin plant foods are grasses, forb leaves, Acacia seeds/pods and shrub fruits. Tree fruits of the type preferred by chimpanzees are available only in groundwater forest, which is relatively rare in arid savannas. Therefore we should dismiss the notion that Plio-Pleistocene East African hominins were tied to forests and tree fruits in a manner similar to chimpanzees.

**Coppa, Alfredo (University of Rome La Sapienza), Luna Calderon, Fernando (Museo Nacional de Historia Natural, Republica Dominicana), Cucina, Andrea (Universidad Autonoma de Yucatan), Lucci, Michaela (University of Rome La Sapienza) and Vargiu, Rita**

[16] *Migration Dynamics and Demic Waves in the Pre-Columbian Circum-Caribbean Area: The Dental Morphological Evidence*

This paper investigates the biological relationship, based on dental morphology, among ancient human populations from several geographical regions in the Caribbean area, pertaining to different periods and cultural horizons. The Tainos from Cuba, Santo Domingo and Virgin Islands always cluster together along with the Saladoids from Puerto Rico and the sample from Guadeloupe. On the contrary, the Ciboneys from Cuba form another cluster together with the preceramic sample of Cueva Roja from Hispaniola indicating that they share a common origin during one of the earliest migration waves. Instead, no clear affinity emerges between the island samples and those from Florida and Venezuela. The biological data from dental morphology support the hypothesis of at least two different migratory waves in the peopling of the Caribbean area.

**Cordell, Ann (Florida Museum of Natural History)**

[249] *Paste Variability and Clay Resource Utilization in Ten Mile Creek Pottery*

Analysis was conducted on a sample of Ten Mile Creek pottery to determine paste variability within the assemblage. One clay sample from the project area was analyzed for comparison. Three sand-tempered, two fiber-tempered, and three spiculate paste categories were identified. Sherd styles and tempers indicate a late Archaic through late prehistoric or early historic time frame. Comparison to the local clay found no unequivocal matches with the paste categories. However, this did not preclude local manufacturing origins for the pottery. There are basic compositional similarities between the clay and sandy and fiber-tempered pastes that might indicate common regional manufacturing origins.

**Cordero, María-Auxiliadora (University of Pittsburgh) and Scaglion, Richard (University of Pittsburgh)**

[77] *Prehispanic Pottery from Carchi, Ecuador: Analysis of an Early Museum Collection*

The archaeology of the Province of Carchi, northern highland Ecuador, is not well known. Few early studies were done, and the sociopolitical problems of the area (bordering with Colombia) impede contemporary research. This study analyzes a 1913 collection from the El Angel area curated at the Carnegie Museum of Natural History in Pittsburgh, PA. The poster contextualizes the collection and compares it with materials housed in Ecuador. Interpretations of pottery decoration are made. Overpainting of vessels may represent pre-burial curation of bowls used for serving food and drink, part of local chiefly paraphernalia.

**Cordova, Carlos [162] see Bisson, Michael**

**Cordy-Collins, Alana (University of San Diego)**

[95] *The Moche Giants*

Excavations at the Moche site of Dos Cabezas between 1997 and 2000 yielded the first

reported cases of gigantism from prehistoric Peru. Five elite young males exhibit an unusual array of skeletal pathologies -some shared and others unique- that appear to be linked to their significantly above-average stature. This report summarizes the osteological data and considers their cultural implications.

[21] *Discussant*

**Cornelissen, Els (Royal Museum for Central Africa)**

[32] *The Lupemban in the Middle. A View from Western Central Africa with Special Focus on Gabon*

Cross-and intercontinental comparisons between Middle Stone Age and Middle Palaeolithic assemblages aim at assessing large-scale patterns of behavioural change and continuity in a period considered crucial for modern human origins. The Lupemban apparently holds a geographic and also chronological position in the middle of this continent-wide research. A review of the evidence from the heartland of the Lupemban concentrating on the rainforest and savanna environments in present-day Gabon will be presented in order to evaluate its current position in the ongoing debate.

**Cornelius, John D. [6] see Wolverton, Steve**

**Corona-M., Eduardo (INAH)**

[144] *Notas Sobre el Desarrollo de la Arqueozoología en México*

En este trabajo se presenta una caracterización de las distintas etapas que ha tenido el estudio de las relaciones entre el hombre y la fauna, mismas que pueden rastrearse con certidumbre a partir del siglo XVI novohispano, dentro del marco conceptual del naturalismo, hasta llegar a su etapa moderna inmersa en el paradigma evolutivo. En México, la Biología ha jugado un papel relevante en el desarrollo de este campo, planteando tanto una serie de explicaciones sobre el paleoambiente como en la perspectiva de la conservación biológica

**Corr, Lorna [132] see Richards, Michael**

**Correa, Ethel [56] see Gutierrez, Maria Eliza**

**Cortes Rincon, Marisol (University of Texas at Austin), Davis, Peter (Montclair State University), DeVito, Melissa (Montclair State University), Vogel, Melissa (University of California at Los Angeles) and Pasuit, Jennifer (Montclair State University)**

[246] *Settlement Study at Chawak But'o'ob, Belize and the Challenges of Mapping a Wetland Escarpment Community*

The principal mechanical challenges to surveyors posed by the kilometer-long Late-Classic Maya site of Chawak But'o'ob were the detailed documentation of architecture on a heavily inclined forested terrain cross-cut by ridges and arroyos and the minimal character of many of the site's 350 platforms. Beyond survey challenges, this paper highlights architectural adaptations by the builders of this short-lived site to a sloping community surface in the form of: varied forms of terracing, including densely inhabited dry-slope residential terraces; extensive water-management construction; and subtle structural features, such as trapezoidal ground plans.

**Cortes Rincon, Marisol [246] see Bechtel, Kelly**

**Cortés Vilchis, Marisol Yadira (Centro INAH, Oaxaca) and Winter, Marcus (Centro INAH, Oaxaca)**

[67] *El Postclásico del Valle de Jalapa del Marques, Región del Istmo, Oaxaca*

Las investigaciones recientes de recorrido de superficie y excavación revelaron un secuencia de ocupaciones postclásicas en el Valle de Jalapa del Marqués, Oaxaca. En el sitio de Paso Aguascalientes encontramos cerámica Tohil Plumbate con placas de jadeita asociados a entierros del Postclásico Temprano. Este sitio y otros muestran un patrón de asentamiento complejo para el Postclásico Tardío, posiblemente asociado a varios grupos étnicos y lingüísticos. Consideramos la relevancia del Late Postclassic Mesoamerican world system para el entendimiento de los datos locales de Jalapa y de la región del Istmo sur.

**Cortés-Santiago, M. A. [84] see Ortiz Augilú, Juan Jose**

**Cortez, Gustavo [163] see Lopez-Bejarano, Jose Maria**

**Cosgrove, Richard [239] see Pike-Tay, Anne**

**Costa, Fernando (University of São Paulo)**[202] *Technological Lithic Traditions of the Central Amazon*

Lithic analyses from samples from sites in the Central Amazon have identified two distinct technological traditions, related to pre-ceramic and ceramic occupations. Pre-ceramic lithics are associated to flaked bi-facial artifacts, including projectile points made from exotic raw materials, dated to the early Holocene. Lithics from ceramic occupations date from 200 BC to AD 1500, being made mostly from locally available sandstone, including bi-facial flaked and small-size polished axes. Data show two interesting trends: bi-facial projectile points in the Amazon can date from the early Holocene; flaked stone axes are compatible with a model of swidden agriculture in fallow areas.

**Costa Junqueira, Maria Antonietta (Museo Arqueológico, San Pedro de Atacama) and Torres-Rouff, Christina (Colorado College)**[10] *The Influence of Tiwanaku on Life in the Chilean Atacama: A Bodily Perspective*

The Tiwanaku (AD 550-1000) influenced life in San Pedro de Atacama for centuries. While located in the far periphery, Atacameños shared a strong relationship with Tiwanaku visible through objects from daily life and ritual paraphernalia. Skeletal data from 300 individuals buried during the peak of Tiwanaku influence were compared to assess community health status and body modification styles. Results show that this Tiwanaku-affiliated group was healthy, suggesting that connections to foreign power combined with local autonomy created a socio-political network conducive to high levels of community health and maintenance of bodily expressions of local ethnic identity.

**Costin, Cathy Lynne (California State, Northridge)**[110] *Social Archaeology and the Legacy of Jim Hill*

Although processualists generally were criticized for focusing exclusively on whole populations as units of analysis, Jim Hill long advocated identifying individuals and social groups in order to study social organization and social process. Directly and indirectly, his work inspired a generation of archaeologists seeking ways to identify gender, ethnicity, class, and the like in order to study social organization and social change. In this paper, I discuss how work inspired by Hill's interest in "The Individual in Prehistory" has evolved into contemporary social archaeology's interest in social identity and the relationships among social identity, social organization, and social change.

[85] *Discussant*Cote, Guy [62] *see Lapointe, Richard***Coudart, Anick (Centre National de la Recherche Scientifique, France /and Arizona State University) [180] Discussant**Coudeneau, Anne [162] *see Moncel, Marie-Hélène***Counts, Derek (University of Wisconsin-Milwaukee)**[188] *Kingdoms without Borders: Sacred Landscapes in the Age of the Cypriote City-Kingdoms (ca. 1000-300 BC)*

Uncertainties plague attempts to define the socio-political boundaries in place during the 1st millennium BC in Cyprus. Based on material excavated in Cypriote tombs and sanctuaries, issues of ethnicity, internal/external contact, and borders have often been emphasized; however, the present discourse suffers from essentialist interpretations of cultural interaction and foreign influence that have impacted the study of Cypriote religion and iconography. This paper reevaluates the role of cult within the cultural landscape of Cyprus and highlights significant degrees of continuity and unity of cult practice among the island's various communities, then explores the social and political implications of these findings.

**Couture, Nicole (McGill University)**[149] *Sticks, Stones, and Tiwanaku Broken Bones: The Archaeology of an Andean Urban Legend*

This paper focuses on the results of recent archaeological research carried out in the Mollo Kontu sector at the pre-Inka urban site of Tiwanaku, located in the highlands of modern day Bolivia. In contrast to other epistemological approaches, which have emphasized processes of socio-political centralization and urban evolution, this study will examine spaces of social and ritual diversity within Tiwanaku's complex social landscape.

[218] *see Grasso, Sara*



**Covey, R. Alan (Southern Methodist University), B  lisle, V  ronique (University of Michigan) and Davis, Allison R. (University of Michigan)**

[51] *Variations in Late Intermediate Period Group Interaction in the Cusco Region (Peru)*

Spanish chronicles describe pre-Inka sociopolitical organization in the Cusco region as highly variable and early Inka interactions with neighboring groups as correspondingly complex. As the Inka state developed and extended its territorial control, local groups were incorporated or co-opted by means of alliance, intimidation, and military conquest. Regional settlement data elucidate certain aspects of local social organization and the impacts of direct state administration in previously autonomous areas. This paper uses new survey data to consider interaction between the early Inka state and groups living to the west and northwest of the Cusco Basin between AD 1000-1400.

**Covey, R. Alan [4] see Garcia, Kristina**

**Cowgill, George (Arizona State University) [149] Discussant**

**Cowie, Ellen R. (UMF Archaeology Research Center), Crock, John G. (University of Vermont) and Petersen, James B. (University of Vermont)**

[96] *Early to Late Woodland Period Plant Use along the Missisquoi River and Missisquoi Bay in Northern Vermont*

Recent archaeological investigations along the Missisquoi River and Missisquoi Bay have increased our understanding of Native American settlement and subsistence in the Champlain lowlands of northwestern Vermont. Archaeological data from a St. Lawrence Iroquois village and a second, nearby village, offer a wealth of data on plant use over a long sequence of Native American settlement from the Middle Archaic to the Late Woodland/early Contact period. Plant use among Native populations from this region show the use of a wide variety of plant and nut resources and an early emphasis on maize during the Late Woodland period.

**Craib, Donald (Craib Law Office, PLLC) [81] Discussant**

**Craig, Jessica H. (University of Kansas)**

[48] *Dedication, Termination and Perpetuation: Evidence for a Continuum of Ritual Behavior at San Bartolo, Guatemala*

Investigations at San Bartolo continue to yield evidence for the use of ceremonial practice for the maintenance of social, political, and spiritual order. The evidence from Structure 63, a Late Classic shrine, indicates the community's desire for direct communication with the gods. Activities at this structure include the offering and burning of what now amounts to over 9000 sherds, all centered around a barrigon. The evidence from Structure 63 also suggests that the current terminology used in Maya archaeology falls short of addressing the idea of "offering" in comprehensive manner, and thus restricts our understanding of ancient Maya ritual behavior.

**Craig, Nathan (UC Santa Barbara) and Aldenderfer, Mark (University of Arizona)**

[185] *Examining Structure Reuse through Multivariate Density Analysis of Multivariate Distributions in Late Archaic Pithouses, Southern Peru*

Discerning palimpsest reoccupation events is extremely difficult and requires integration of multiple datasets. Applying GIS-based techniques to documentation and analysis of a Late-Terminal Archaic pithouse we illustrate methods for effective recording and description of reoccupation episodes. The pithouse's basal occupation levels represent the earliest evidence of reduced residential mobility encountered in the region thus far. The structure continued to be reoccupied for an extended period and during the Terminal Archaic it was converted into a facility used for a variety of other purposes but remained an important element in the community's layout.

**Craven, Sloan (Washington State University), Jones, George T. (Hamilton College) and Beck, Charlotte (Hamilton College)**

[133] *Relating Toolstone Curation to Mobility: Exploring a GIS Approach*

Archaeologists generally agree that there is a strong relationship between mobility and the organization of technology. During the Paleoarchaic period in the Great Basin, for example, shifts in the proportions of local and extralocal toolstone sources in assemblages are hypothesized to have been the result of a decrease in mobility. We have shown previously that these changes are consistent with transport costs estimates derived from GIS modeling. We anticipate, as well, corresponding shifts in tactics relating to the curation of higher quality sources. Here we evaluate this hypothesis through an examination of alternative measures of tool resharpening.

**Crawford, Gary W. (University of Toronto)**[96] *Palaeoethnobotany at the Onset of Food Production in Ontario*

Flotation-sampling at numerous Princess Point Complex sites over the last twelve years evidences a wide range of plant remains associated with an agroecology in addition to pre-tenth century AD maize. Morphological data indicate that Princess Point maize is a type of Northern Flint and that this race did not evolve locally. Maize also appears to have been part of an agroecology from the outset in Ontario, at least to the extent that the archaeological data are able to resolve. Comparisons are drawn with human-plant interactions during earlier and later periods in south-central Ontario.

**Creamer, Winifred (Northern Illinois University), Ruiz, Alvaro (Northern Illinois University) and Haas, Jonathan**[168] *Late Archaic Regional Organization in the Norte Chico, Peru*

There is now evidence of approximately 30 major ceremonial and residential centers dating to the Late Archaic (3000 to 1800 BC) period in the four valleys of the Norte Chico region. There are no signs of a distinct hierarchy of these sites in terms of overall size or the number or size of monumental structures. There is also radiocarbon evidence that most of these sites were occupied contemporaneously during period from 2400 to 2000 BC. This paper explores the idea that these centers represented relatively independent polities engaged in peer-to-peer competition for religious participants and labor.

Creamer, Winifred [207] *see Haas, Jonathan*Creel, Darrell [75] *see Clark, Tiffany***Cremonte, Maria Beatriz (CONICET- Instituto de Geologia y Minería (UNJu)), Botto, Irma Lia (CONICET - Facultad de Ciencias Exactas (UNLP)) and Vina, Raul Oscar (CONICET - LANADI (UNLP))**[219] *Burnished Bowls from Northwestern Argentina: A Petrographic and Physico-Chemical Study*

This paper presents new data on manufacturing characteristics of burnished bowls recovered from late prehispanic pottery -making contexts from sites in the Humahuaca valley (Province of Jujuy, NW Argentina). These unusual vessels exhibit technological attributes that differ substantially from local pottery traditions and were likely destined for special uses. Results obtained from fabric analysis using thin-section microscopy (TSM) and various other analytical strategies (e.g., XRD, FTIR, SEM-EDAX, FRX, ICP) provide insights into production technology with respect to surface color and treatment, firing conditions and temperatures, and the non-local provenience of these vessels.

Crespo, Fabian [251] *see Tillquist, Christopher***Crespo-Torres, Edwin (University of Puerto Rico, Rio Piedras Campus)**[145] *When Ancient Bones Tell Stories: Osteobiography of Human Remains from Tibes Archeological Site*

During archaeological excavations in the prehistoric ceremonial center of Tibes (400-1200 BC) (Ponce, Puerto Rico) in a period between 1975 and 1982, a several human burials were discovered. Nevertheless, thirteen years later, an osteological analysis was performed on these remains. General information concerning age at death, sex, stature, and some pathological conditions was obtained from 126 individuals. This brings us an osteobiography profile of the people how was born, lived and died on this important archaeological site in the island of Puerto Rico.

Crider, Destiny [160] *see Simon, Arleyn***Crock, John G. (University of Vermont)**[1] *Archaeological Evidence of Eastern Tainos: Late Ceramic Age Interaction Between the Greater Antilles and the Northern Lesser Antilles*

Strong stylistic and iconographic correlations suggest that Anguilla and other islands in the northern Lesser Antilles were part of a Taino-related cultural sphere that extended from the large islands of the Greater Antilles to the small islands of the northeastern Caribbean. Various lines of evidence are used to help reconstruct the level of interaction between these two subregions during the Pre-Columbian era.

[52] *see Glascock, Michael D.*; [90] *see Toney, Joshua*; [96] *see Cowie, Ellen R.*

**Crock, John G. (University of Vermont) and Petersen, James B. (University of Vermont)**[84] *Colonization, Population Expansion and Complexity in the Northern Lesser Antilles*

The northern Lesser Antilles were permanently colonized by large groups of sedentary fisher-farmers around 500 BC, following initial occupation by smaller, more transient groups of Preceramic Age fisher-gatherers during the previous 1000 years. Populations appear to have grown steadily from this point, with the greatest increase during the late Ceramic Age between ca. AD 900-1200. The timing and extent of colonization and expansion may correlate with reconstructed climatic trends. More importantly, however, the development of greater social complexity is argued to be central to the sustainability of increased populations across a full range of small island environments.

**Croes, Dale [36]** see Vargo, Barbara

**Croissier, Michelle (University of Illinois)**[103] *An Integrative Approach for Determining Ceramic Provenance and Technology*

This poster introduces a new method for ceramic provenance and technological investigation. Pottery samples from the Oaxaca Barrio at Teotihuacan were analyzed using polarizing microscopy, X-ray diffraction (XRD), and inductively coupled plasma optical emission spectroscopy (ICP-OES). Polarizing microscopy was used for mineralogical and textural characterization; clay constituents and mineral phases were identified through XRD; and ICP-OES was used to determine chemical composition. These data were then subject to multivariate-statistical tests. Results show how variation in raw materials, clay preparation techniques and firing technologies contribute to fabric signatures and how such variation can be used to describe compositional and technological groups.

**Cross, Sarah**[21] *Nasca Females: A Preliminary Look at Gender in Ceramic Art and Reflection of Social Order*

I analyze 85 vessels depicting human forms, gaining insight into the social organization of the ancient Nasca and providing a reflection of roles and actions they valued. I determine that females were not present in ceramic art in the Early Nasca Phase but were prevalent during the Middle and Late Phases. I suggest an intensification of warfare as an explanation for the rapid incorporation of females into the iconography. Warfare heightened the importance of the female role in procreation and allowed females to fill social roles typically occupied by males.

**Crossland, Zoe (University of Leicester)**[111] *Embodied Evidence: Archaeology and Exhumation*

The immediacy of recent exhumation contrasts with the excavation of more ancient human remains, in that it produces corpses that are remembered or remember-able as individuals. The treatment of the body through excavation recognises some bodies after death as more suitable to be identified, remembered, mourned, exhumed and reburied. This paper considers the ways in which the materiality of the corpse is constituted through the performative acts of excavation and analysis, suggesting that the conflict that often surrounds the work of recent exhumation reveals the usually hidden beliefs about the body that are wrapped up with the excavation of human remains.

**Crothers, George (University of Kentucky), Swedlund, Charles (Cobden, Illinois) and Ward, Robert (Mammoth Cave National Park)**[43] *Early Woodland Mineral Mining and Exploration in Mammoth Cave, Kentucky*

Mammoth Cave was extensively explored beginning 4600 cal. years BP and then intensively mined for gypsum and mineral salts during the Early Woodland (3000-2200 years BP). Prehistoric remains are exceptionally well preserved in the constant atmosphere of the cave. A multi-year project to document and map remains along 4.5 km of passage identified more than 7,000 items, including torch debris, cordage, twined footwear, gourd bowls, digging sticks, shell scrapers, human paleofeces, and prehistoric drawings. Although exploration and mining appears to have been systematic, the purpose may have been for social and ritualistic activity.

**Crothers, George (University of Kentucky) [125]** *Discussant*

**Cruz Jiménez, Ricardo Leonel (ENAH, México) and Tenorio Castelleros, Dolores (ININ, México)**[173] *Dinámicas de Circulación de Obsidiana entre el Centro Norte del Golfo de Veracruz y los Yacimientos en el Estado de Hidalgo, a Traves de Análisis por Activación de Neutrones*

Se plantea de una forma diacrónica la interacción que existió entre el centro-norte del Golfo de

Veracruz y los principales yacimientos de obsidiana localizados en el actual estado de Hidalgo: Zacualtipán, Sierra de las Navajas y Tulancingo. La propuesta de interacción se hace a partir de los resultados obtenidos con análisis de activación neutrónica reportados en la literatura de esta región arqueológica, así como por los efectuados por los autores en muestras obtenidas en el área periférica de El Tajín. Se aborda la importancia de estas fuentes de obsidiana en la conformación de las dinámicas culturales, políticas y geográficas de esta porción de Mesoamérica.

**Cruz-Carretero, Sagrario (Instituto de Antropología, Universidad Veracruzana)**

[56] *De Florida a México. Migración de Negros e Indios Durante el Siglo XVIII*

Después de la invasión británica en la Florida en 1763, un grupo de indios, negros libres y algunos españoles emigraron a La Habana y Veracruz. Cuarenta familias de Pensacola fundaron San Carlos en el delta del río Chachalacas, Veracruz. Los indígenas, negros y españoles originarios de la Florida que fundaron San Carlos sufrieron discriminación, persecución e intolerancia. Después de dos y medio siglos esta ponencia intenta reconstruir su historia y presentar las relaciones económicas en el Golfo de México y la importancia de Inglaterra en el comercio legal/ilegal durante el siglo XVIII.

**Cuba Peña, Luis Alberto [149] see Kosiba, Steven**

**Cucina, Andrea [16] see Coppa, Alfredo; [47] see Tiesler, Vera**

**Cuddy, Thomas (URS Corporation)**

[189] *Maya Domestic Economies at Chau Hiix, Belize*

This paper investigates links between polity and economy through the organization and change of Maya household economic activities from the Classic to Postclassic Periods. Average Maya households were stable agriculturalists whose subsistence production contrasted with the volatile political economy of elites. Transition in Lowland Maya society from the Classic to Postclassic is marked by the breakup of complex, state-level, political hierarchies. This paper evaluates evidence of botanical and material remains from Maya households at Chau Hiix, Belize, from Late Classic and Early Postclassic contexts to better understand domestic economies in the Classic period, and their response to political upheavals.

**Culleton, Brendan (University of Oregon), Kennett, Douglas (University of Oregon) and Erlandson, Jon (University of Oregon)**

[44] *Demographic Artifacts of the Radiocarbon Calibration Curve: Implications for Identifying Mechanisms of Social Transformation*

Archaeologists working on the Northern Channel Islands commonly use changing frequency of radiocarbon-dated components through time as a proxy for demographic change. Fluctuations in the number of dated components have been interpreted as demographic changes in response to climatic instability, introduction of disease, or social transformation. However, variation in atmospheric <sup>14</sup>C production can account for some of these perturbations. We have modeled component frequencies assuming the regular creation of datable archaeological carbon. This model demonstrates that variability in the calibration curve reproduces several of these fluctuations, necessitating a re-evaluation of the underlying processes contributing to cultural development in the region.

**Curet, L. Antonio (The Field Museum)**

[145] *Excavations and Reconnaissance of the Civic-Ceremonial Center of Tibes, Ponce, Puerto Rico*

This paper presents the aims, research design, and initial results of the Archaeological Project of Tibes. The project has focused on the study of social and cultural changes from the perspective of the household. However, this task is complicated by the lack of surface visibility domestic structures. To increase the success of finding buried domestic units the project developed a multistage, multidisciplinary research employing a wide variety of approaches and analyses that together yielded information about the history of the site, changes in the use of space through time, economic strategies, and the possible locations of houses.

[141] see Laffoon, Jason

**Custer, Katie (Texas A&M University, Institute of Nautical Archaeology)**

[41] *Exploration and Empire: Iconographic Evidence of Iberian Ships of Discovery*

The Age of Discovery is widely known for the voyages of exploration by Spain and Portugal that forever changed world history. The caravel and nao, as the main technological impetus of these

voyages, are studied as they appear in historical documents. However, little is known about them beyond the purported ideal sailing attributes as described by explorers and sailors. The doctoral research into the iconographic evidence of caravels and naos starts where the written record leaves off. This new research examines the pictorial record of these ships and intends to introduce information regarding ship construction and rigging details.

**Cutright-Smith, Elisabeth (University of Arizona) and Gavioli, Lisa (University of Arizona)**

[93] *Chronology, Production, and Exchange: The Ceramics from Chevelon Ruin*

This paper presents the results of three seasons of analysis of ceramics collected from excavations at Chevelon Ruin. Ceramic analysis has yielded valuable information regarding chronology of Chevelon - when the pueblo was founded, how it grew, and when occupation ended. Seriation has enabled the temporal ordering of Chevelon deposits, allowing the dating of other recovered materials. Ceramics from Chevelon have also provided a broader picture of possible population sources for the village and its relationships with other villages in the Homol'ovi Cluster and nearby settlement clusters.

**Cyphers, Ann (Instituto de Investigaciones Antropológicas-UNAM) and Zurita-Noguera, Judith (Instituto de Investigaciones Antropológicas-UNAM)**

[207] *Monumentality at San Lorenzo*

This paper will survey specific types of early monumental constructions at the regional Olmec capital of San Lorenzo, Veracruz, Mexico, and their temporal relationship to the evidence for social and economic stratification and the consolidation of political power.

**Cyphers, Ann [142]** see Zurita-Noguera, Judith

**Dahlin, Bruce [177]** see Pope, Kevin

**Dahlin, Bruce H. (Howard University), Hutson, Scott (Dumbarton Oaks Museum) and Magnoni, Aline (Tulane University)**

[49] *Insights Into Classic Maya Urban Design From Chunchucmil*

Chunchucmil, a specialized trade center in NW Yucatan, is one of the very largest Classic Maya cities. Its extraordinary density necessitated well-defined streets and boundary walls that clearly separated private from public spaces. Chunchucmil's public spaces also lacked the large, civic-religious monuments that one is led to expect of large Maya cities. It was also a true city with well-developed prestige and commodity markets. These and other features provide a view of Classic Maya cities that is not possible elsewhere, particularly of the interplay between cooperation and competition that structured the built environment and constrained authoritarian power.

**Dahlin, Eleanor (Texas A&M University)**

[75] *12th Century Sites of the Cañada Alamosa: Linking the Chaco and Mimbres*

Prehistoric frontiers allowed groups the opportunity to exploit new lands, expand territory, and continue cultural practices with independence from core areas. Recovery of Classic Mimbres Black-on-white and Socorro Black-on-white ceramics from sites in the Rio Alamosa canyon of New Mexico suggests perennial and perhaps simultaneous occupation by communities affiliated with both southern Mimbres groups and northern Pueblo groups beginning ca. AD 1100. These data reflect an undefined aspect of Mimbres and Pueblo II/III expansions that may have physically connected the Mimbres and Chaco worlds in the early 12th century.

**Dakin, Karen (UNAM-Instituto de Inv. Filológicas) [37]** *Discussant*

**D'Altroy, Terrence (Columbia University) [10]** *Discussant*; [233] *Discussant*

**Dambach, Katharine (University of Massachusetts Amherst)**

[239] *Shell-Bearing Middens: An Example from Martha's Vineyard, Massachusetts*

Site 19-DK-171, located on Martha's Vineyard, Massachusetts, was investigated by the Harvard Archaeological Field School in 1999, under the direction of Dr. Elizabeth S. Chilton. The goals of the excavation were to establish site boundaries, identify features, and determine the site's age and function. Preliminary results suggest that this site consists primarily of a Late Woodland (AD 1000-1500) habitation and associated shell midden. Laboratory analysis of the flotation samples and marine shellfish remains indicates that Native peoples exploited a variety of shellfish, including *Aequipectens irradians* (Bay scallop), *Mercenaria mercenaria* (Quahog), *Mya arenaria* (Soft-Shell Clam), and *Crepidula fornicata* (Common Slippershell).

**Damp, Jonathan (ZCRE)**[171] *Flight of the Salt Woman: Posture and Praxis in Zuni Archaeology*

In the late 1800s, Frank Cushing led the drive to stop Anglo expansion in Zuni and ushered in a tradition of anthropological practice serving political purpose. For the last 30 years, cultural resource management provided a tool for cultural preservation for the Pueblo of Zuni. Indigenous archaeology and tribally owned programs assisted the Zuni Tribe in land claims, repatriation, and the fight for historic preservation of sacred sites. The case of Zuni Salt Lake is examined from a perspective of indigenous ideologies and archaeology to provide a critical examination of the social and political contexts in which we work.

**Dancey, William (Ohio State University)**[104] *Lithic Technology from the Late Archaic to the Late Late Woodland in Central Ohio*

Eastern Agricultural Complex agriculture in the Middle Ohio Valley originated and spread during the 2,000 year long Woodland period (1,000-3,000 BP). Charred plant remains confirm this fact, but what about hunting? This poster shows a comparison of the lithic assemblages from the Late Archaic to the Late Late Woodland periods in central Ohio in an attempt to measure changes in hunting strategy over the period of time during which food production was evolving rapidly. The research looks for evidence of decline in deer consumption with increased agriculture as occurred in the central Midwest.

**Dandridge, Debra (Texas A&M University) and Meen, James K. (University of Houston)**[196] *Investigating Biodeterioration of Rock Art*

This paper discusses the application of analytical chemistry to chemically map the changes in rock substrates inhabited by lichens. Lichen biomes that colonize rock surfaces where rock art may be found degrade the rock substrates. Determining the processes that contribute to degradation of the rock surface is an important step in developing conservation practices that ameliorate natural processes.

**Danielson, Dennis (JPAC Central Identification Laboratory)**[141] *Bioarchaeological Implications Concerning the Effects of Termites (Isoptera) on Human Osseous Remains Recovered in Papua New Guinea and Vietnam*

There is very little information in the archaeological record concerning termite (Isoptera) damage to human osseous material. This poster utilizes characteristic termite damage displayed on wood and human remains recovered from a World War II aircraft crash site in Papua New Guinea (PNG), to identify identical characteristics on human remains recovered in 2003 from a WWII aircraft crash site in PNG and a 2004 excavation of a burial from the Vietnam War.

**DaRos, Maureen (Yale University) and Colten, Roger (Yale University)**[166] *A History of Caribbean Archaeology at Yale University and the Peabody Museum*

Yale University and the Peabody Museum of Natural History have a long history of archaeological research in the Caribbean basin. The Peabody Museum is the repository of one of the largest and most comprehensive collections of Caribbean archaeological material in the world. The majority of the collections were excavated by Cornelius Osgood, Froelich Rainey, and Irving Rouse. In this paper we present a summary of research that produced these collections and provide an overview of the collections themselves.

**Darras, Véronique (CNRS)**[193] *Obsidian Strategy and Power in the Tarascan Society from the Malpais de Zacapu, Michoacan*

The study of obsidian artefacts from the Zacapu region, for the Postclassic period, has emphasized important transformations which broke with regional productive and technical systems which were previously in existence between Late Classic and Early Postclassic period. These changes modified the main structure of the economic system involving new patterns in acquisition strategy, production, technology, distribution and use. They may be connected with the emergence of centralized power structures in the Tarascan society. This paper focuses on the mechanisms which regulated the obsidian economic activities during the Late Postclassic period at the Tarascan sites of the Malpais de Zacapu.

**Davidson, Iain (UNE, Australia) and McGrew, William (University of Cambridge, UK)**[98] *Stone Tools and the Uniqueness of Human Culture*

This paper discusses the niche created by the earliest stone tool making and how this may have served to differentiate hominins from other apes.

**Davila, Patricio (INAH)**[200] *La Definición de la Huasteca*

Tras estudiar la arqueología de la región Huasteca – por más de 25 años – desarrollamos un programa de investigación que analiza y, en algunos casos, definirá algunos aspectos antropológicos que caracterizan al territorio y al desarrollo de sus pobladores. Antes del arribo europeo – y desde el centro de México – fue originalmente señalado este territorio por lo que la conciencia de “lo huasteco” apenas se ha venido construyendo y generalizado en las últimas décadas, en una entidad que, lejos de mantener alguna unidad, desde siempre ha estado conformada por múltiples etnias.

**Davis, Allison (University of Michigan, Ann Arbor)**[103] *Producing Style in the Neolithic of Southern Italy*

During the Neolithic, the potters of Bova Marina, Italy decorated their ceramics with elaborate stamps and impressions. The direction in which the potter applied these marks reflects muscle memory acquired when he or she first learned to make pottery and is unlikely to change during a lifetime. In contrast, although the decorative motifs produced follow a similar grammar, they vary widely. In fact, one potter may have produced several different designs for a single firing. This paper uses data from surface decoration to examine the relationship between style in the production process and style visible on the finished products.

**Davis, Allison R. [51] see Covey, R. Alan**

**Davis, Erin (Carter & Burgess), Chenault, Mark (WestLand Resources, Inc.), Stubing, Michael (Carter & Burgess) and Montero, Laurene (Carter & Burgess)**[198] *The Merrill Ranch Project: Hohokam Life along the Middle Gila River*

Recent investigations by Carter & Burgess identified over 60 Hohokam sites within a 5,000+ acre area located 8 miles northeast of the Casa Grande ruin, a major Hohokam center. Sites include several in the Escalante Ruin group and date to the Pioneer through Classic periods. This paper presents an overview of the sites, results of research conducted up to this point, and directions for future research. Results of planned excavations will add greatly to our knowledge of the Middle Gila River Hohokam and perhaps to our understanding of the debated Santan and Polvorón phases of the Hohokam chronology.

**Davis, Hester (Arkansas Archeological Survey)**[130] *Special Places, Special Circumstances: Arkansas' Archeological Landmarks*

There are (as of 2005) 15 National Historic Landmarks in Arkansas. The majority are in federal, state, or municipal ownership, and range in time from Late Woodland to 1957. The Menard-Hodges site, now in federal hands, was first purchased from a private owner by The Archaeological Conservancy, and then purchased by the National Park Service. Its protection serves as an excellent example of how private landowners, the federal government, and in this case the Quapaw Tribe can work together to recognize Special Places in Arkansas.

**[81] Discussant**

**Davis, Kate (Harvard University)**[163] *Muru ut Pata: Recent Investigations into a Classic Tiwanaku Period Domestic Site, Tiwanaku, Bolivia*

The study of domestic areas during the Classic (IV) period of the Tiwanaku culture have long been overshadowed and outnumbered by investigations into the nature of the monumental core. Our paper focuses on recently begun excavations into an area of domestic activity outside what is commonly recognized as the monumental core, Muru ut Pata. The association/interrelation of this site within the context of the monumental unit with reference to other studies of Classic Tiwanaku domestic sites will be discussed as well as the function this site within the social and economic dynamic of production and consumption of goods.

**Davis, Loren (Oregon State University)**[36] *Early Coastal Occupation at Site J69E, Espiritu Santo Island, Baja California Sur, Mexico: Results of 2004 Excavations*

Excavations at site J69E on Espiritu Santo Island, Baja California Sur, revealed early human

use of marine and terrestrial resources. Five marine shells returned uncorrected  $^{14}\text{C}$  ages between  $11,280 \pm 120$  and  $7,820 \pm 70$  BP. Initial  $^{14}\text{C}$  dating of human remains produced ages of  $3,875 \pm 40$  and  $2,320 \pm 25$  BP; however, these bone dates are suspect. Site occupants enjoyed a broad-based diet, reflected in the discovery of metates and a faunal assemblage of fishes, larger marine and terrestrial mammals, and a variety of shellfish. Notably, excavations recovered many dolphin bones, which may reflect the presence of open-water hunting techniques.

**Davis, Morgan (University of Pennsylvania)**

[120] *The Accidental Chemist: Field Testing at RB-11*

While soil testing in a laboratory setting is ideal, there are times when either the cost or time lag involved are not optimum. Field testing of soil samples can save time, money and/or help direct research goals. This paper will report on one series of trials used at the PfbAP toward helping determine, on-site, the past Maya use of a modified landscape.

**Davis, Peter F. (Montclair State University), Hanna, Jonathan (Montclair State University) and Nolan, Elizabeth (Northwestern University)**

[246] *The Soils of a Heavily Modified Escarpment Landscape in the Central Maya Lowlands*

At Chawak But'o'ob, a Classic-period community in Northern Belize, on-going studies of archaeological soil matrices correlate horizon patterns and properties with particular architectural features and functional regimes (residence, agriculture, water-management) and allow researchers to consider the dynamics of social and environmental factors that influenced the site's evolution and abandonment. The discovery of K horizons in some archaeological contexts has implications for our understanding of ancient climate in the Maya region. This study suggests that detailed horizon analysis can be an important complement to chemical and other physical analysis of archaeological soils.

**Davis, Peter [246]** see Cortes Rincon, Marisol; [246] see Hanna, Jonathan; [246] see Prasarn, Nahum

**Davis, Richard (Bryn Mawr College) and Knecht, Richard (Palau Historic Preservation Office)**

[78] *Household Archaeology on Unalaska Island, Alaska: The First 7000 Years*

Domestic structures from Unalaska in the eastern Aleutians have been documented from 9000 BP to the contact period. Late prehistoric period houses are well known, but until recently much less was identified from earlier periods. A series of excavations over the last 10 years at the Uknadok, Margaret Bay, Amaknak Bridge and Summer Bay sites have revealed a variety of house types with numerous floor artifacts which span the first 7000 years of the Aleutian sequence. By 3000 BP large, multiroomed, stone-lined semi-subterranean houses with elaborate sub floor features had appeared and may reflect increased social complexity.

**Davis, Tony [70]** see Peros, Matthew

**Davis-Salazar, Karla L. (University of South Florida) and Wells, E. Christian (University of South Florida)**

[146] *Stressed Out: The Role of Cultural and Natural Resources Management in Sustainable Development in Northwest Honduras*

Sustainable development in Central America usually entails economic growth through mechanisms that aim to preserve and protect finite natural resources. Archaeological remains, as finite cultural resources, rarely enter the equation unless economic development is tied to tourism. This paper presents the results of on-going applied archaeological research in northwest Honduras that examines the ways in which rural agrarian communities manage natural and cultural resources to deal with food and water insecurity caused by globalization processes. Our work informs development initiatives by situating archaeological evidence in broader debates about the sustainability of human/environment relations over long periods.

**Davis-Salazar, Karla L. [234]** see Moreno-Cortes, Jose E.; [234] see Hawken, James R.

**Dawdy, Shannon Lee (University of Chicago) [227]** *Discussant*

**Dawson, Matthew [150]** see Stewart, Elizabeth



**Day, Mary Beth (Hamilton College), Hoffman, William R. (Hamilton College), Bailey, David G. (Hamilton College) and Jones, George T. (Hamilton College)**

[138] *Chemical Characterization of Chert and Fine-Grained Volcanic Artifact Source Materials in the Eastern Great Basin*

Paleoarchaic (11,500 to 8,000 BP) inhabitants of the eastern Great Basin left behind tools made primarily from three materials: obsidian, fine-grained volcanics, and chert. The majority of volcanic rock sources have been identified and characterized. Trace element data from ICP-MS analysis does not distinguish between various chert sources. However, preliminary major and trace element data from XRF analysis show that some of the chert sources are chemically uniform and can be distinguished from other sources. The potential of chert characterization is considered in light of prehistoric material selection patterns and previous provenance studies of fine-grained volcanic and obsidian sources.

**Day, Peter M. (University of Sheffield)**

[247] *Mixing Your Metaphors: Raw Material Choice, Tradition and Identity in Twentieth Century Cretan Pottery Manufacture*

The ethnographic study of 52 kiln sites within East Crete reveals a rich picture of raw material choice and manipulation in pottery manufacture. Adherence to recipes, according to the origins of the potter, overrides most anticipated functional requirements of vessels types ranging from 1.5 m. tall storage jars to small water containers. The mobility of potters marrying outside their communities, and the subsequent change in their shape repertoire highlight this deliberate reproduction of their own trademark clay mixes. We examine the archaeological implications of these jealously preserved practices, which serve as a vehicle for identity and rivalry amongst Cretan potters.

**De Anda, Guillermo (Universidad Autónoma de Yucatán)**

[29] *Evidence of Human Sacrifice in Cenotes of Yucatan: An Ethnohistoric and Taphonomic View*

This paper analyzes human skeletal material observed from a number of cenotes in Yucatan, Mexico and recovered from the Sacred Cenote. Ethnohistoric sources mention almost 200 human sacrifices, with 79% of the victims being deposited in cenotes. Sources also give information about the form of sacrifice as well as forms of deposition: funerary, mortuary or discard. The ethnohistoric data are compared with an osteo-taphonomical analysis using direct field observation and laboratory analysis. The study seeks to determine the social strata of victims, their origin, the way they were obtained, the types of sacrifices and material evidence of sacrifice.

**de Ángeles Guzmán, Mauro [174] see Borejsza, Aleksander**

**de Barros, Philip (Palomar College)**

[169] *The Origin of the Bassar Chiefdom: Ironing Out a Solution Without Being a Slave to Traditional Models*

What led to the rise of the Bassar Chiefdom of Togo? The passage of large, long-distance Hausa caravans? The rise of large-scale Bassar iron production and trade? Traditional models would emphasize these economic factors. Such models may apply in many parts of the world, including the rise of the Western Sudanic States that controlled the trans-Saharan gold trade, but they do not apply to the Bassar chiefdom. Its rise resulted from the secondary impacts of regional slave raiding --the need to solve political problems resulting from the aggregation of heterogeneous refugee populations fleeing the slave-raiders.

**de la Torre, Ignacio (Institute of Archaeology, UCL-London) [98] Discussant**

**de la Torre, Ignacio (UCL, Institute of Archaeology) and Mora, Rafael (Universidad Autònoma de Barcelona)**

[17] *The Oldowan at Olduvai Beds I and II: Old and New Questions to the Leakey Collections*

In our revision of the Olduvai Beds I and II sites excavated by Leakey the importance of manuports is reconsidered, proposing that a great part of such so-called raw-material reserves are rocks deposited naturally. Our study also shows the absolute relevance of percussion processes in some of the sites, stressing the flexibility of the Oldowan technology. Finally, a revision of the typology created by Leakey questions the value of terms as Developed Oldowan, and the dichotomy Oldowan-Acheulean in Bed II; from our point of view, since the appearance of the Acheulean in Bed II there does not exist any other technology in Olduvai.

**De León, Jason (Penn State)**

[3] *Demographic Changes, Sociopolitical Development, and the Organization of Salt Production during the Postclassic Period in the Basin of Mexico*

By the Late Postclassic period, salt had become a standardized measure of exchange and its production a specialized craft carried out primarily on the shores of Lake Texcoco. Many important questions remain unanswered regarding the organization of salt production and its relationship to broader demographic and sociopolitical changes through time. Using a GIS, this poster examines Basin of Mexico survey data collected by Sanders et al. (1979) to better understand the relationship among population growth, political and economic development, and the emergence of salt production centers through time.

[141] *see Hill, Cheryl*

**de Mille, Christy (University of Calgary), Varney, Tamara (Lakehead University)  
and Turney, Michael (Bison Historical Services Ltd.)**

[16] *Saladoid Lapidary Technology: New Methods for Investigation with Stone Bead Drilling Techniques*

The sophistication and artistry of the Saladoid lapidary industry in the Early Ceramic Age of the Caribbean is remarkable. The methods of production for these lapidary items were investigated through the exploration of one aspect of bead manufacture, drilling technology. We specifically focussed on a collection of stone beads from several Saladoid sites on Antigua. The bore holes of the beads were studied through a technique in which a cast and then mould of the bore was made. The mould was then examined for manufacturing traces through scanning electron microscopy. Results were interpreted through comparison with experimentally drilled materials.

**Deagan, Kathleen (University of Florida)**

[112] *Questions in Common: The Entwined Historical Archaeologies of Cuba and Florida*

For the past 400 years Cuba and Florida have maintained strong geographical, historical, economic and population connections. These long standing ties are also evident in the trajectories and academic traditions of historical archaeology in both places. Exchanges and collaboration among Cuban and Floridian researchers have been undertaken since the 1940's, and this discussion reviews the connections in the colonial-era histories and modern-era archaeology of the two areas. Some of the most potentially productive archaeological questions held in common by historical archaeologists working in Cuba and Florida are considered within the context of the larger Caribbean region.

**Deal, Michael (Memorial University of Newfoundland) and Halwas, Sara (Memorial University of Newfoundland)**

[96] *Late Prehistoric Plant Use in the Western Minas Basin, Nova Scotia*

The Minas Basin was a major area of aboriginal occupation in Nova Scotia during the Late Woodland period. Since 1985, archaeological surveys conducted in the western portion of the Minas Basin have identified over 60 late prehistoric sites on principal river systems and embayments. In 2005 extensive paleoethnobotanical sampling was undertaken at coastal campsites at Clam Cove and Starrs Point. Results of the laboratory analysis of these samples is combined with previous work at interior village sites at Melanson and St. Croix to present a broad picture of late prehistoric plant use for the western Minas Basin.

**Dean, Emily (University of California, Berkeley)**

[51] *Moving on Up: High Altitude Settlement Patterns in the Southern Vilcanota River Valley during the Late Intermediate Period*

Peru's Southern Vilcanota River Valley witnessed an explosion of settlements into high altitude regions during the Late Intermediate Period. Some archaeologists correlate similar LIP occupations elsewhere with a need for increased defensibility. While not discounting this interpretation for all areas of the Andes, I argue that it is not the best model for understanding Late Intermediate Period settlement pattern in this region. I suggest that in order to understand this movement to the heights one must also take into account changes in environmental conditions and economic strategies as well as people's symbolic and ritual interactions with their landscape.

**Dean, Jeffrey [44]** *see Gonzalez, Susana*

**Dean, Laura (Advisory Council on Historic Preservation) [24]** *Discussant*

**DeBlasis, Paulo (University of São Paulo) and Kneip, Andreas (University of Tocantins)**

[8] *Regional Perspectives on Moundbuilding Societies from Coastal Southern Brazil*

This paper focuses on the integrated study of processes of regional occupation and landscape formation by the sambaqui (shellmound) building societies at the southern shores of Santa Catarina, Brazil, vis-à-vis the dynamic environmental evolution that took place throughout the Holocene. The essential idea is to understand how sambaqui people have made these coastal lowlands their homeland - leaving behind monumental imprints on the ever-changing flat landscape. Approaching site formation processes as well as settlement evolution on a regional scope, we aim to model complex patterns of natural and socio-cultural evolution that have taken place at the southern coast of Brazil.

**DeBlasis, Paulo [113]** *see Gaspar, Maria Dulce*

**DeBoer, Warren (Queens College)**

[205] *The Midewiwin and the Protohistoric Rubicon*

Although the Midewiwin, or Medicine Lodge, of the Upper Great Lakes is often regarded as a post-contact development, it clearly rests upon deep-seated aboriginal forms that can be traced in the archaeological record. Based on comparative examination of Midé narratives and archaeological data, enduring versus innovative aspects of the Midewiwin are identified and evaluated in terms of the effective population involved in transmission, the memory technologies employed, and constraining links to other cultural domains.

**Dedecker, Melanie (University of Arizona)**

[93] *The Role of Ground Stone Exchange in the Homol'ovi Settlement Cluster*

Ground stone played an important role in exchange among members of the Homol'ovi Settlement Cluster. The availability and versatility of specific raw materials, as well as the intended function of the manufactured tools, dictated selection of raw material. Within all Homol'ovi sites, a clear preference is shown for Shinarump Formation sandstone, which has important performance characteristics. The limited distribution of quarry sites in the region for the Shinarump sandstone created the need for exchange within the cluster. This paper explores the implications of this exchange network.

**DeDufour, Karyn (Archaeological Records Management Section) and Kulisheck, Jeremy (Gila National Forest)**

[148] *Using Cultural Resource Information System Geospatial Data in Scholarly Research and Public Education*

Cultural resource information systems (CRIS's) provide critical access to archaeological data generated by compliance and management oriented field research. At present however, CRIS data has remained underutilized in academic scholarship and public education products. Linking CRIS information to geospatial data can facilitate data generation for academic study, provide avenues for creating new problem-oriented datasets, and allow for the development of visual and interactive public education products for states and regions.

**deFrance, Susan (University of Florida)**

[145] *Local and Imported Fauna at the Tibes Ceremonial Site*

Excavations from various field seasons at the Tibes ceremonial site have produced an abundance of vertebrate and invertebrate faunal remains. The zooarchaeological assemblage includes a variety of dietary staples that were locally available as well as some non-indigenous animals, notably the remains of guinea pigs that people presumably transported to the site from elsewhere in the Caribbean. This presentation discusses some preliminary findings concerning how faunal resources were acquired, transported to the site, and differentially distributed across the site. Also considered are the implications of the use of faunal remains for status differentiation by Tibes elites.

**deFrance, Susan [53]** *see Moseley, Michael; [89]* *see LeFebvre, Michelle J.*

**Dehler, Carol [217]** *see Porter, Jason*

**Deino, Al [32]** *see Yellen, John*

**Del Águila, Lic. Carlos (Museo Nacional de Arqueología, Antropología e Historia del Perú)**

[175] *El Patrimonio Cultural Mueble y Las Implicancias de su Legislación en la Arqueología del Perú*

Las regulaciones para la salida temporal de muestras con fines de estudios y la salida temporal para exposiciones al extranjero no se han venido cumpliendo a cabalidad en los últimos años. En el primer caso es urgente fiscalizar el retorno de algunas muestras y el cumplimiento de la entrega de los resultados de estos análisis. En el segundo, los beneficios para el Estado no son equitativos con respecto a lo que logran "merchandising" los países organizadores. Discutir estos temas mejorará las relaciones entre el Estado y los proyectos e instituciones extranjeras que operan en el Perú

**del Olmo, Laura (Instituto de Cultura Puertorriqueña)**

[161] *Proyecto de Registro y Catalogación de las Colecciones Arqueológicas del Instituto de Cultura Puertorriqueña*

Desde el 2004 el Programa de Arqueología del Instituto de Cultura Puertorriqueña ha venido realizando el registro y catalogación de sus colecciones. Para ello se han creado cinco bases de datos con el programa FileMaker, que reúnen la información de las colecciones de Petrograbados, Cerámica, Concha, Hueso y Piedra. Cada base de datos incluye cuatro fichas básicas: Catalogación, Fotografía, Registro y Conservación en las que se registra cada uno de los objetos de la colección tomando en cuenta sus particularidades. La conformación de estos catálogos es un punto de partida para la conservación y documentación de los bienes arqueológicos.

**Delagnes, Anne (C.N.R.S.)**

[135] *Reassessing Hominids' Cognitive Abilities: The Refitting Evidence in the Late Pliocene and Early Upper Pleistocene Old World Record*

Refitting analyses have greatly contributed since several decades to the understanding of site formation processes. Their potential for studying the lithic production systems has been exploited to a much lesser extent. The reconstruction of the chaîne opératoire through a direct reading of the cores' or tools' reduction sequences, gives essential clues for assessing the hominids cognitive abilities in terms of anticipation, productivity and complexity in the organisation of lithic production. Such notions are discussed through the results of several analysis carried out on African and European refitted series ranging from the late Pliocene to the early Upper Pleistocene.

**Delgado, Arnulfo (California State University, Los Angeles) and Brady, James E. (California State University, Los Angeles)**

[64] *Aspects of Ritual Organization in Santa Eulalia, Guatemala*

Santa Eulalia has maintained a strong indigenous politico-religious organization headed by a functioning set of alcalde rezadores. The alcalde rezadores control important features in the social and political landscape such as the cave, the church and a Pre-Columbian idol, the Jolon Konop. One unusual aspect of the organization is that office holders are supported by the community which presents a very different picture than the "leveling function" often attributed to the cargo system. This suggests a model in which the appropriation of religious office could easily become the basis of social hierarchy.

**Delgado, Mercedes (Pontificia Universidad Católica del Perú), Olivera, Paula (Instituto Peruano de Energía Nuclear), Montoya, Eduardo (Instituto Peruano de Energía Nuclear) and Bustamante, Angel (Universidad Nacional Mayor de San Marcos)**

[219] *Ceramics from Villa El Salvador, a Late Formative Site from the Central Coast of Peru*

We applied a multi-elemental approach to the characterization of archaeological ceramics from Villa El Salvador. INAA, EDXRF and XRD analyses were used for the characterization of the ceramics. A group of whole vessels, with no accurate provenience were analyzed by the EDXRF non-destructive technique. The results obtained were in good agreement with the results obtained with the ceramics sherds, with one exception. Thus, the comparison of the EDXRF spectra from whole vessels with the data base of the Villa El Salvador sherd collection allow us to identify a distinctive compositional fingerprint for the site.

**Delle, James (Kutztown University)**

[91] *Subjugation and Subjectivity: Slavery and the Rise of Modernity in the British West Indies*  
The rise of modernity in Europe resulted in the redefinition of social relations between those in

control of the apparatus of state and economy and those who worked and lived within that apparatus. This shift from the definition of the basic social unit from subject to individual citizen resulted in vast changes in colonial lives. In this paper, I will discuss how this global shift was manifested in the material worlds of an enslaved community on Marshall's Pen, a coffee plantation in central Jamaica.

**DeLoge, Alana (University of Pittsburgh)**

[170] *Household Organization and the Domestic Economy of Condor Chinoka, Bolivia*  
Preliminary fieldwork at the site of Condor Chinoka in the eastern section of Bolivia's Oruro department indicates that long-term changes in activities associated with the household articulated differently with the introduction of Tiwanaku-style ceramics. The results of general analyses of both local and imported ceramic assemblages will be presented, and spatial and diachronic patterns of changes in the community's domestic economy will be articulated with the spatial distribution of Tiwanaku-style wares from the heartland and the Cochabamba region to the east. The implications of this work for testing models of interregional interaction will also be explored.

**Delvaux, Thomas R. (Youngstown State University), Fry, Gary F. (Youngstown State University) and Murphy, Betsy (Youngstown State University)**

[244] *A Review of the Storr's Lake Site (SS4), San Salvador Island, Bahamas, 1996-2005*  
From 1996 to 2005 archaeologists from Youngstown State University have excavated at the North Storr's Lake site, San Salvador Island, Bahamas. The site, currently threatened by commercial development, has produced a wealth of information about the island's prehistoric inhabitants which will be presented here.

**Demarest, Arthur (Vanderbilt University), Barrientos, Tomas, Suasnavar, Jose and Alvarado, Sylvia**

[238] *The Royal Massacre at Cancuen and the Classic Maya "Collapse"*  
Many recent comparative studies have demonstrated the regional variability in Classic Maya civilization and also in the processes previously referred to as the "Classic Maya collapse." This paper describes a surprisingly dramatic variant of the "collapse" at the site of Cancuen, Guatemala. There thirty-one elites, the king, and the queen were assassinated shortly after AD 801 and Cancuen was rapidly abandoned. Epigraphic, archaeological, and forensic evidence is summarized. Implications are discussed for theories of the linked political, economic, and ideological nature of Classic Maya society and the cause of the collapse of the western Peten kingdom.

**Demarest, Arthur (Vanderbilt University) [9] Discussant; [134] see Garcia, David; [14] see Barrientos, Tomás**

**DeMarrais, Elizabeth (University of Cambridge)**

[60] *Agency, Architecture, and the Use of Space in the Site of Borgatta (AD 1000-1440), Northwest Argentina*

In this paper, I argue that a practice approach to the built environment can reveal aspects of social organisation, routine, and habitus that are important for understanding agency. Using the concept of the setting, as articulated by Amos Rapoport, I analyse space and activities within a recently excavated site, Borgatta, in the Calchaqui Valley. I consider the materiality of buildings and other features that contain, constrain, and direct the activities of daily life, ritual, and social interaction. More generally, I pursue an understanding of the ways that buildings and spaces institutionalise, facilitate, and sometimes limit agency over the longer term.

**Demoule, Jean-Paul (INRAP)**

[85] *Rationality, Power, and Wealth in the European Iron Age*  
Traditional societies often invent mechanisms that avoid the accumulation of riches and the emergence of power. Thus, the "big men" of New Guinea were buried with their riches such as boar's teeth, which were broken up before closing their tombs. In the European Iron Age, we observe that periods with very rich tombs, such as VIth and the IVth centuries BC, precede times in which power is less manifest. When the first proto-states emerged in the course of the IInd century, one does not find any such rich tombs anywhere. The elites have found ways to keep their accumulating riches.

**Dempsey, Erin (University of Nebraska-Lincoln)**[104] *Condition of Earthwork Sites in Ross County, Ohio*

When Squier and Davis first mapped and excavated the earthworks of the Mississippi River Valley in the 1840s, they saw remains of entire earthen structures rising above the landscape. After 150 years of cultivation using abrasive modern farming practices, many of the earthworks are now barely discernible with the naked eye. This poster will focus on assessing the condition of several earthwork sites in Ross County, Ohio. It will also provide a description of the change that has occurred at each site since Squier and Davis's original documentation.

**Deo, Jennie (University of Washington)**[6] *The Latitude of Fuelwood Studies: Conducting Subarctic Ethnoarchaeology in an Era of Rising Oil Prices*

Sustained occupation of high latitude environments has long been incumbent upon a steady supply of fuel. In prehistoric Kodiak Island, Alaska, inhabitants likely harvested driftwood as a primary fuel, but the selection criteria and sustainability of this resource are unknown. In this research, interviews with modern driftwood gatherers have helped elucidate the use categories and harvesting costs required by foraging models, which in turn were evaluated using archaeological charcoal. This archaeological research has particular relevance and potential usefulness, since the exorbitant price of fuel oil is causing some Alutiiq families to consider reintegrating driftwood into their modern fuel suite.

**d'Errico, Francesco (CNRS) and Henshilwood, Christopher**[32] *Bone Technology in the Southern African Middle Stone Age*

Complex bone technologies are commonly associated with the European Upper Palaeolithic and African Later Stone Age, virtually absent at Middle Palaeolithic sites from Europe and the Near East, and rarely found in the African Middle Stone Age. We reappraise marked bone artefacts and a bone point recovered from Klasies River, analyse previously unpublished bone tools recovered from probable MSA levels at Peers Cave, MSA at Blombos Cave, and the open air site of Blombosch Sands with the aim of determining their chronological and cultural attribution, discuss their symbolic value, and document bone manufacture techniques associated to the Southern Africa MSA.

**Desailly-Chanson, Yann [234] see Bell, Ellen****Descantes, Christophe (Research Corporation of the University of Hawaii), Speakman, Robert J. (University of Missouri) and Glascock, Michael D. (University of Missouri)**[52] *Compositional Studies of Caribbean Ceramics: The Instrumental Neutron Activation Analysis Evidence*

The Missouri University Research Reactor Center (MURR) has initiated a new program into the chemical characterization of ceramics from the Caribbean region. This paper introduces the session of chemical compositional studies of ancient Caribbean ceramics by describing the techniques and procedures of instrumental neutron activation analysis (INAA) as applied to the chemically distinctive ceramics from ten islands. This work is presented in conjunction with a review of previous compositional studies in the region to illustrate the potential for INAA to address questions of the region's past.

**Descantes, Christophe [44] see Popelka-Filcoff, Rachel****Deslatte, Kaitlin (University of Massachusetts, Boston), Ryzewski, Krysta (Brown University) and Scott, Randi (University of Rhode Island)**[5] *Rebels With a Cause: Archaeological Examinations of a 17th Century Rhode Island Settlement*

This poster brings together two seasons of excavations at the Greene Farm in Warwick, Rhode Island; a settlement on the fringes of colonial New England populated by 17th century political and religious outcasts. Excavations reveal that these outcasts were also pioneers and innovators whose active role in maritime trade, early industry, and cross-cultural interactions situated their frontier settlement as a nexus of global importance in the wider Atlantic World. Drawing on multiple archaeological, historical, and geophysical sources, this poster presents insights into one of the earliest iron working operations in the region and a domestic structure dating to before 1700.

**DesLauriers, Matthew (CSU, Northridge)**

[89] *Archaeological Applications of Contemporary Fishing Knowledge on Isla Cedros, Baja California*

On Isla Cedros, Baja California, a modern community of fishermen has provided invaluable information for comprehending and interpreting archaeological materials recovered from the island. Despite the fact that the modern inhabitants are not direct lineal descendants of the indigenous population, their understanding of modern geography, environmental conditions, and marine resources makes this information indispensable. Details including the effects of short-duration weather events, oscillations in resource availability, the stability, resiliency, and predictability of different resource classes, human impacts on marine environments, and potential cultural responses to alterations in local conditions are discussed.

[8] see Erlandson, Jon

**Desrosiers, Pierre M. (Avataq Cultural Institute-Université Sorbonne), Rahmani, Noura (University of Alberta) and Gendron, Daniel (Avataq Cultural Institute)**

[74] *Kangiqsualuk: A Palaeoeskimo Quartzite Quarry Site in Eastern Arctic (Canada)*

Unlike Ramah metachert, raw material quarries are rarely identified as important places in Eastern Arctic. However in every region, Palaeoeskimo groups searched local stones to produce their tools and ensure their needs. Thus, the use of quartzite was significant and even equally valued to chert. This is particularly true for Diana quartzite found at Kangiqsualuk. We thus describe the activities carried out and their relation to regional scale activities to define the site function. Accordingly, studying a quarry site helps shed light on past groups' movements which were not only tied to game migration but to stone procurement as well.

**Dever, Alejandro (University of Pittsburgh / Wenner-Gren Fellow)**

[77] *Economic Development of a Specialized Coastal Community at Chengue, the Tairona Area, Colombia*

Specialized production and the development of a regional economy may have been key factors in the consolidation of a Tairona political economy around 900 AD. This study focuses on the community of Chengue, in a cove of the northern coast of Colombia, where there are few options for agriculture and the reliance on the exchange of a few marine products with neighboring villages was crucial in the process of socio-political change. The evidence collected shows how a small village economy was transformed by a regional economic system in a sequence that spans 1200 years.

DeVito, Melissa [246] see Cortes Rincon, Marisol

**Devitt, Mathew (Center For Desert Archaeology) and Gann, Douglas (Center For Desert Archaeology)**

[6] *Preservation Archaeology at Casa Malpais: Balancing Conservation and Heritage Tourism*

The site of Casa Malpais, a National Historic Landmark, suffered architectural degradation due to a series of excavations in the 1990's. Compounding this problem, lack of stabilization and preservation planning led to a condition nearing architectural collapse. Evaluation by architectural conservators found that the only suitable conservation treatment was the backfilling of excavated rooms. Preserving the site's architecture by backfilling was met with resistance due to possible impacts upon heritage tourism. Through a series of public meetings, a compromise was met wherein the visual impact of backfilling was mitigated by a process of a community-based program of stabilization and minimal reconstruction.

**Devlin, Joanne (University of Tennessee), Herrmann, Nicholas (University of Tennessee) and Pollack, David (Kentucky Heritage Council)**

[43] *GIS Analysis of Commingled and Cremated Bone*

In an attempt to quantify the commingled, burned human bone excavated at the Walker-Noe site (15Gd56), a Middle Woodland mound in Kentucky, we digitized identifiable cranial fragments in a modified version of BoneEntryGIS software for ArcView (Marean et al 2001). Utilizing the software extension, skeletal elements were recorded by location, fracture pattern, Munsell color, and other skeletal characteristics. We propose this approach as a means by which to overcome the inadequacies of traditional human skeletal inventory systems in managing fragmentary remains from archaeological and forensic contexts. The GIS provides a visual inventory and an efficient method for assessing MNE.

**Dias, Adriana Schmidt (Universidade Federal do Rio Grande do Sul - UFRGS) and Jacobus, André Luiz (Museu Arqueológico do Rio Grande do Sul - MARSUL)**

[69] *Early and Middle Holocene Hunter-Gatherers from Southern Brazil*

In this paper we explore archaeological evidence at Sangão rock shelter, located in the Sinos River valley, southern Brazil. The radiocarbon dates and the results of our excavations indicated that this site was occupied by hunter-gatherers between 8,790±40 yr BP to 3,730±60 yr BP. The study of paleo-environmental and zooarchaeological data, as well the lithic technological organization suggest a homogeneity of strategies related to the exploitation of Atlantic Forest resources along the early and middle Holocene.

**Dias, Adriana Schmidt (Universidade Federal do Rio Grande do Sul - UFRGS) [154]**

*Discussant*

**Dias, Sandra [246]** *see Prasarn, Nahum*

**Diaz, David (Harvard University) and Tuross, Noreen (Harvard University)**

[220] *Sources and Distribution of Phosphorus in a Reforested Area of Known Past Land Use*

The Pierce Farm at Harvard Forest in Petersham, MA, USA is, today, in a reforested area that had been extensively cultivated and logged 150 years ago. Utilizing historical land-use records, we examine soil phosphorus concentrations as a function of past land disturbance. Extractable phosphate concentrations tracked the presence but not scale of soil disturbances and phosphorus sources were not vertically segregated by land-use surface in soil. Phosphate and pollen analysis distinguished the farmhouse from surrounding land-use areas showing unique, artifact-derived phosphorus control.

**Diaz de Valdes, Rachel (University of Arizona) and LaMotta, Vincent (University of Arizona)**

[93] *Analysis of the Chevelon Ruin Fauna with an Emphasis on Ritual Behavior*

The faunal analysis conducted on the Chevelon Ruin material focused on defining and identifying the ritual aspects of the assemblage. A life-history approach was used to analyze the material by developing models for ritual and non-ritual taxa. This life-history approach involved information on acquisition, processing, use, and disposal of the animal using ethnographic and ecological literature. This resulted in two flow models for the life-history of animals as food and for animals as ritual/ceremonial paraphernalia. After identifying the ritual deposits based on these criteria, changes in ritual behavior over time were examined.

**Diaz Pais, Elena [239]** *see Kligmann, Debora M.*

**Diaz Perez, Claudia Patricia (Smithsonian Tropical Research Institute)**

[102] *Patrones Funerarios en el Gran Coclé: Sinopsis de la Variabilidad Mortuoria de Cerro Juan Díaz: 1 - 1550 d.C.*

Una muestra de más de 300 enterramientos documentados en este emplazamiento funerario realza la versatilidad de formas de depositar y redepositar a los muertos. La norma es la no exclusividad de un tipo de entierro por fase. Las sepulturas más tempranas, enfocan el modo en paquete numerosamente dispuesto en fosas restringidas (1 - 750 d.C.). En la fase intermedia (750 - 950 d.C.) prosigue la modalidad primaria flexionada, pero dentro de conjuntos que sí pueden ser llamados cementerios, y en la última fase (950 - 1550 d.C.) descuello el entierro primario extendido.

**Diaz-del-Rio, Pedro (Instituto de Historia, CSIC)**

[85] *The Rise and Fall of Iberian Copper Age Lineages*

Lineage structures, the dominant social institution of Copper Age Iberia, were key to third millennium socioeconomic developments, leaving a rich and diverse archaeological record. By the end of the Copper Age household units played an increasingly important role as decision making loci. The contradiction between lineages and emerging individual household interests resulted in the subversion of the structuring principles underpinned social stability. The fall of lineage dominance gave households a cornerstone role in subsequent Bronze Age societies. While the Copper Age can only be understood through the analysis of collective action, Bronze Age Iberia requires a household-oriented archaeology.



**Dibble, Harold (University of Pennsylvania)**[197] *The Flintknapper's Fallacy*

Understanding the processes involved in manufacturing stone tools has become one of the central concerns in lithic research and is the focus of both American approaches to lithic reduction and the French one known as chaîne opératoire. Both approaches rest, however, on one extremely important assumption, namely that archaeologists are able to recognize what was the intended result, or desired end product. This paper discusses some of the problems that we face in identifying what those end products are, and in turn, how misidentification can lead to faulty reconstructions of technological processes.

[98] *Discussant*; [76] *see Schurmans, Utsav***Dickau, Ruth (Temple University)***Seeds, Roots, Shoots, and Fruits: Panama Archaeobotany and Pre-Columbian Crop Dispersals*

[102] The Isthmus of Panama forms a relatively narrow land bridge between North and South America, and was a major crossroads for the human spread of domesticated plants in the past. Several decades of archaeobotanical research in Panama, particularly on microfossils, have produced evidence for the early Holocene introduction of domesticates such as maize (*Zea mays*), manioc (*Manihot esculenta*), squash (*Cucurbita* sp.), yam (*Dioscorea trifida*), and arrowroot (*Maranta arundinacea*). When combined with phylogenetic studies identifying ancestral populations, and archaeobotanical data from other parts of the Neotropics, this evidence contributes significantly to reconstructing patterns of pre-Columbian crop dispersals throughout the Americas.

[194] *see Harbison, Jeffrey*

**Dickson, D. Bruce (Texas A&M University), Pearl, Frederic (Texas A&M Galveston), Barrett, Jason (Texas A&M University), Gang, G-Young (Yeungnam University, Korea) and Kahinju, Samuel (National Museums of Kenya)**

[150] *Excavations and Lithic Analysis at the Lenkiteng Site (GnJm38) in the Tol River Catchment of Central Kenya*

The Lenkiteng site (GnJm38) is a buried lithic component exposed in a cut bank of a tributary of the Tol River in Central Kenya. Test excavations, geological profiling and sediment analysis at Lenkiteng allow a preliminary correlation of its lithic materials with the late Quaternary alluvial stratigraphic history of our study area. Tools, cores and debitage, generally referable to the Later Stone Age, are made of basalt, quartzite, chert and obsidian. Formal analysis and microscopic use wear study suggests the frequency of occurrence of the various raw materials at the site is determined by local availability rather than material properties.

Diefenbach, Angela [65] *see Ely, Lisa*Diehl, Richard (University of Alabama -Tuscaloosa) [23] *Discussant***Diehl, Richard (University of Alabama) and Scott, Sue (Independent Scholar)**[119] *Turquoise: Prized Gem Stone --Or Did They Fake It??*

Considerable confusion has arisen over blue green stones that decorate the finery of elites in Postclassic Mexico, and points south. Turquoise can be identified by its chemical signature, and today researchers are asking what is, and what is not, turquoise. The implications are far-reaching as the sources of the best grade turquoise are located in the American Southwest and would have been conveyed over extremely long distances of dangerously rugged terrain and hostile inhabitants to the places of manufacture and use. We examine the evidence and implications for this most exotic of fine raw material, and suggest the market was open to substitute goods.

Dietl, Holger [59] *see Kandel, Andrew***Dietler, John (UCLA)**[43] *Complexity, Canoes, and Shell Tools in South Florida*

The political domination of south Florida in the sixteenth century by complex hunter-gatherers like the Calusa depended on elite access to large numbers of watercraft. The roots of this dominion lay in the intensification of canoe manufacturing and the organized production of the shell tools needed to make them. I attempt to identify these changes, and thus the origins of chiefly political organization, by tracking the production and use of shell tools in south Florida. My analysis of woodworking tools and byproducts from over 100 archaeological sites reveals the timing and epicenter of this critical turning point in southeastern prehistory.

**Dietler, Michael (University of Chicago)**[111] *Colonialism and Bodily Practices: Consumption, Contestation, and Colonial Subjectivity*

The body is a primary target and agent of colonialism, and bodily practices are a fundamental site of struggle and vector of social transformation. This is why such things as foodways, spatial practices, clothing, and ritual provide a highly illuminating focus for archaeologists seeking to understand the operation of colonialism and its often unintended consequences.

This paper employs examples from ethnographic research in Kenya and archaeological excavations in France to demonstrate the relationship between cuisine, the use of space, and colonialism and how bodily practices both reveal the location of agency and are implicated in the construction of colonial subjectivity.

**Dijkhoff, Raymundo [126]** see Ruiz, Arminda

**Dillehay, Tom (Vanderbilt University)**[53] *Transformations of Preceramic Forager Society and Social Complexity Origins*

The dispersal of different food-producing economies is a part of complex transformation of Preceramic societies in the Central Andes which began at the end of the Pleistocene and continued into the Holocene. In order to understand the transition to food-producing societies and early social complexity, we need to consider the changes in "band-level" foragers which occurred in many different places during the millennia before the first appearance of agricultural and/or maritime villages and public monuments in the fifth millennium BP. These transformations are primarily considered for the north coast of Peru.

[149] *Discussant*; [95] *Discussant*; [152] see Bonzani, Renée

**Dillian, Carolyn (Princeton University), Bello, Charles (Cultural Resource Consulting Group) and Shackley, M. Steven (University of California, Berkeley)**[172] *Mid-Atlantic Super-Long Distance Obsidian Exchange*

Preliminary analysis of a small sample of obsidian artifacts from archaeological contexts in the mid-Atlantic region has yielded tentative trade connections to western U.S. obsidian sources. This research has resulted in exciting suggestions that cross-continental down-the-line exchange may have occurred in prehistory. However, due to the extreme distances covered by the exchange networks proposed here, archaeological provenience, in addition to geologic provenience, is of utmost concern. A critical examination of archaeological provenience and geochemical sourcing as tools for understanding prehistoric exchange remains valuable in ongoing archaeological dialogue.

**Dirkmaat, Dennis (Mercyhurst College) and Luis, Cabo (Mercyhurst College)**[132] *Context, Archaeology and Forensic Anthropology: Lost in Translation?*

A close examination of published accounts of forensic anthropology reveals a generally diminished, disregarded, or misunderstood consideration of the relevance and importance of archaeology in the recovery and interpretation of skeletal remains from outdoor contexts. Two primary reasons for this diminished role can be identified: 1) original discussions defined forensic anthropology as a subfield of physical anthropology and; 2) forensic archaeology method and theory has been ill-defined (especially with respect to documenting context). In this presentation, the history and current state of forensic archaeology in the US will be reviewed. Baselines, guidelines, and new definitions will be discussed.

**Ditchfield, Peter [17]** see Braun, David; [17] see Plummer, Thomas

**Dixon, Boyd [147]** see Stocker, Terry

**Dixon, Christine (University of Colorado, Boulder)**[230] *Taking Another Look: Re-analysis of Ground Penetrating Radar Data from the Ceren Site, El Salvador*

Ground penetrating radar has successfully been employed in the archaeological investigation of the Ceren site in El Salvador. Such technology has allowed researchers to locate ancient structures situated beneath five to six meters of volcanic ash. This paper presents the recent re-analysis of radar data from all seasons of research at the site, and particularly from 1992. Advances in processing allow new anomalies to be found in the data. Such anomalies will aid in continued research and excavations at the Ceren site.

**Dixon, E. James (University of Colorado)**[66] *Coastal Colonization of the Americas: Evidence for Early Maritime Adaptations*

The hypothesis that the earliest colonization of the Americas occurred using watercraft along the southern coast of Beringia and the northwest coast of North America rests on dating geological events, human remains, artifacts, and paleoenvironmental events. While the mid-continent of northern North America remained blocked by ice until 13,000 BP, refugia, islands, glaciated areas of the continental shelf along the Northwest Coast were ice-free by 16,000 BP. Deglaciation along the northwest coast had begun by 16,800 cal. BP and was sufficiently advanced to enable humans using watercraft to colonize coastal areas by 15,350 BP.

**Dodgshon, Robert [185]** *see Entwistle, Jane A.*

**Doelle, William H. (Desert Archaeology) [118]** *Discussant*; [26] *Discussant*

**Doering, Travis (University of South Florida) and Hernandez-Jimenez, Maria de Lourdes (Centro INAH Veracruz)**[23] *El Marquesillo, Veracruz: Archaeological Survey Project*

El Marquesillo is a Mesoamerican site located on an elevated bank of the Middle San Juan River in Southern Veracruz, Mexico. Based on initial interpretation of ceramic, artifact, and ethnohistoric evidence, the site was continually occupied from the Early Formative period (circa 1500 BC) to the present day. The survey project concentrated on the Formative period component of the site, which demonstrated a significant level of participation in the social, political, and economic interaction spheres of the Gulf Coast Olmec. The latest results and interpretations from a series of non-destructive, reconnaissance and remote-sensing surveys are discussed.

**Doering, Travis [23]** *see Hernández-Jiménez, María de Lourdes*; [42] *see Branas, Chris*

**Doherty, Heather (University of Alberta), Henderson, Matthew (University of Alberta) and Olson, Jan (Grant MacEwan College)**[12] *Preliminary Analysis of Manteno Ceramics From the Interior Valleys of Coastal Ecuador*

We will describe the general assemblage of ceramic forms and styles found at the middle and late Manteno sites of Julcuy and Agua Blanca. Both of the sites are located within the same valley system, and undoubtedly had much contact. Nonetheless, differing demographics, including socio-economic and political status, have left an abundance of artifacts that describe quite dissimilar activity levels. We will also discuss a methodological problem concerning the classification of bottles and jars found during analysis.

**Doleman, William (New Mexico State Historic Preservation Office)**[225] *NMCRIS the Next Generation: Improving Data Acquisition and Availability in the 21st Century*

The New Mexico Archeological Records Management Section (ARMS) is an administrative unit of the State Historic Preservation Division. ARMS is home to paper and digital records for some 150,000 archeological sites and 95,000 projects, the preponderance of which are the products of CRM studies. The digital component of the archive comprises tabular (Oracle) and spatial (ESRI GIS) information for both sites and projects. This paper will review how NMCRIS currently meets the needs of agency and consultant users and describe plans for improving the system by implementing online solutions for reducing redundancy in data capture, and automating common data queries.

**Dolphin, Alexis [164]** *see White, Christine*

**Domack, Eugene W. [44]** *see Schaaf, Lisa N.*

**Domínguez, María del Rosario (Universidad Autónoma de Campeche), Espinosa, Manuel Eduardo (Instituto Nacional de Investigaciones Nucleares) and Folan, William Joseph (Universidad Autónoma de Campeche)**[103] *Ceramic Production in and around the Regional State of Calakmul, Campeche, Mexico*

Studies of ceramic production at the regional level have been of great utility in defining the origin of ceramic types as well as the ceramic traditions of different archaeological sites. This has been achieved in Calakmul thanks to the physical and chemical analysis of ceramic sherds and natural

clays of the region. This report presents the analysis of ceramic materials from sites within the regional state of Calakmul to offer a comparative study of the production processes of this region with that observed in previous investigations of Calakmul, its regional state and environs.

**Dominguez-Rodrigo, Manuel (Complutense University)**

[17] *Palimpsests at Olduvai Gorge*

Current models of early human behavior, based on referential frameworks that model carnivore and hominid interaction, rely on skeletal part frequencies and ecological neo-taphonomic studies. Reanalysis of several Bed I sites, using a physical attribute taphonomic approach, shows a different picture: some classic Bed I sites -FLK NN1-3, FLK North 6, FLK N 1-2, and the FLK levels overlying the "Zinj" floor -are natural accumulations superimposed on the stone tool-discarding behavior of hominids. This new approach includes techniques to understand processes of bone breakage and bone surface modifications, among which the studies of tooth marks, percussion marks, and cut marks are crucial.

[215] see Barba Egido, Rebeca

**Dominquez, Lourdes (Oficina Del Historiador De La Ciudad De La Habana) [112]**

*Discussant*

**Donkin, Ann [42]** see Whitman, Linda

**Donley, Colleen (UCLA)**

[95] *Moche Pit Tombs of the Jequetepeque in Socio-temporal Perspective*

I examine patterns in Moche mortuary practice from the Jequetepeque Valley, focusing on changes in pit tombs between the Early, Middle and Late periods. I document shifts in the relationship between pit tombs and other tomb forms, the demographic profile of individuals buried in pit tombs, and in specific burial practices such as orientation and grave goods. This discussion will reference Mazanka, Pacatnamu, and San Jose de Moro, and will address the significance of adherence (and non-adherence) to Moche traditions and the ways in which mortuary treatment may be reflective of shifts in social structure during political and social stress.

**Donohue, James (SD State Historical Society)**

[72] *Early Holocene Landscapes and Paleoindian Occupations on Elm Creek, Fall River County, South Dakota*

Geoarchaeological investigations of sites at Elm Creek, Fall River County, South Dakota document rich archaeological landscapes with considerable time depth. Landscapes include four terraces (T-1, T-2, T-3, and T-4). Radiocarbon dates from paleosols in terrace fills yield a chronological sequence for the landscapes and sites. Paleoindian occupations are documented at depths from 1 m to over 3 m below the T-3 surface. Paleoindian occupations have been dated to 7920±80, 8530±120, 9290±40 B.P., and 10,320±70 B.P. The upper drainage of Elm Creek near the Black Hills was heavily utilized during the Late Paleoindian period.

**Doonan, Roger (University of Sheffield)**

[201] *More Bang for Your Buck!!!! Reclaiming Agency from the Study of Metal Artefacts*

Microstructural characterisation is a routine task in the "processing" of metal finds. The interpretive potential of microstructural data remains underdeveloped because it derives from a methodology that fetishizes artefacts and is practiced by investigators who fail to theorise their own practice. Through combining ethnography with archaeological evidence from the Aegean it is argued that the practice of banging can be central to the reconsideration of microstructural data. It is argued that metallurgical practice can be seen to be embedded in a symbolic scheme which makes parallel references to the transformation of the individual, society and the natural world.

**Dore, Christopher (Statistical Research, Inc.) and López Varela, Sandra (Universidad Autónoma del Estado de Morelos)**

[185] *Kaleidoscopes, Palimpsests, and Clay: Realities and Complexities in Human Activities and Residue Analysis*

This paper presents a new framework for identifying patterns in chemical data using geospatial methods. Between 1999-2003, the Cuentepec Ethnoarchaeological Project (Morelos, México) investigated the production of clay comales (griddles) used to cook tortillas. The collection of chemical data from floors and other sediment surfaces was undertaken as one investigation method. Image analysis techniques, usually used for working with multispectral remotely sensed

data, were used to identify, classify, and visualize chemical patterns within the household workshop. These techniques fundamentally differ from traditional analysis methods in that they treat all chemical data sets simultaneously rather than individually. Such treatment better represents the complexities of human spatial activity and the palimpsest of chemical deposition in the archaeological record.

**Dore, Christopher D. [185]** *see* López Varela, Sandra L.

**Dorn, Ronald [196]** *see* Merrell, Carolynne; **[196]** *see* Tratebas, Alice M.

**Dorst, Marc [132]** *see* Healy, Paul F.

**Dougherty, Kate [220]** *see* Conolly, James

**Dougherty, Kathleen (Trent University)**

[155] *A Reinterpretation of Middle Woodland Burial Ceremonialism in the Rice Lake-Trent River Hopewellian Manifestation*

A group of Middle Woodland burial mounds located in the Rice Lake region, near Peterborough, Ontario have long been interpreted as evidence for the emergence of a Hopewellian-inspired, rank-based pre-agricultural society. Analysis performed in the late 1960s on Cameron's Point Mound C (AD 100 +/- 55) interpreted the burial patterns as due to inherited rank differences. A bioarchaeological reexamination of the skeletons from Mound C proposes an alternate mortuary program, independent of the rank hypothesis, that in turn supports a re-evaluation of the way in which Hopewellian concepts were variously adopted by small, mobile, hunter-gatherer communities.

**Douglas, John (University of Montana), Roosevelt, Anna (University of Illinois, Chicago), Pahl Schaan, Denise (Museu Paranse Emilio Goeldi) and Bevan, Bruce (Geosight)**

[207] *The History, Function, and Socioeconomic Context of Monumental Architecture in Ancient Brazil*

A truism of archaeology has been that only centralized, stratified, fully agricultural complex societies build, maintain, and use monumental architecture. Archaeologists even consider the presence of such structures as proof of an agricultural state. But the growing world archaeological record indicates that organization, subsistence, and architecture have not always covaried in the way expected. In the meantime, heterarchy theory has emerged to explore alternatives to organizing and feeding complex societies that make and use monumental constructions. In this paper, we evaluate the theories with information about the history, function, and socioeconomic context of monumental architecture to ancient Brazil.

**Douglass, John (Statistical Research, Inc/University of California, Riverside), Hull, Kathleen (Statistical Research, Inc.) and York, Andy (EDAW)**

[155] *Mourning at West Bluffs: Mortuary Behavior in the Intermediate Period on the Southern California Coast*

Recent archaeological investigations on the bluffs above La Ballona, in west Los Angeles, have revealed 2000-year-old features that are consistent with remains of mourning ceremonies documented in regional ethnography. These features, consisting of numerous pieces of intentionally broken groundstone, ornaments, other artifacts, and cremated remains, have been found across the southern California coast. The structure and spatial context of these features within this habitation site provide insight into mourning practices and the significance of loss and remembrance within this culture. This paper discusses specific features from two Intermediate period coastal sites and draws analogies from both other sites and ethnographic analogy.

**Douglass, John [36]** *see* Ciolek-Torrello, Richard

**Doutriaux, Miriam (Dumbarton Oaks)**

[134] *From Imperial to National Ideologies: Conceptualizing Archaeological Sites in the Past and Present*

Archaeological sites were built, occupied, transformed, and abandoned in ways that have shaped human practices and ideologies for centuries. The apparent timelessness of ancient ruins makes them significant to human eyes, although their specific interpretation is invariably colored by changing socio-historical contexts. At present, archaeological remains in Latin America are at once objects of scientific inquiry, potential economic resources, and emblems of

local and national identity. This paper traces the evolution of several sites in the Colca Valley, Peru, from places of foreign control in the Middle and Late Horizons, to symbols of local glory in present times.

**Downum, Christian [165]** *see O'Hara, Michael*

**Doyel, David (Estrella Cultural Research)**

[134] *Gatlin Site National Historic Landmark, Arizona: Past and Future*

Gatlin Site National Historic Landmark, a prehistoric Hohokam village (ca. AD 800 to 1200) in southwestern Arizona, was an important farming and manufacturing center and gateway for trade in the Southwest US. The site contained a canal, a platform mound, at least 30 other mounds, two ball courts, a central plaza, and other features. Excavations in the late 1950s led to the description of the site as a vacant ceremonial center but recent research has undermined this interpretation. This paper synthesizes the history of research and describes efforts to protect the resources while opening the site to public visitation.

**Drake, Eric (Hiawatha National Forest), Franzen, John (Hiawatha National Forest) and**

**Drake, Melissa (Western Michigan University)**

[13] *Working at Home and Living at Work: Negotiating Tensions of Work, Leisure, and Place in Early 20th Century Logging Camps*

The social, symbolic, and physical separation of the workplace from the domestic sphere is considered to be one of the more profound social-historical consequences of the Industrialization process. Although this social/spatial construct is prevalent across the industrial landscape, logging camps represent one context where the spheres of work and domestic life are spatially conflated. Drawing off of archaeological and documentary forms of evidence, this paper critically examines how this context shaped the organization of life and labor within this unique social setting, as well as the likely implications for labor demands during the early twentieth century.

[13] *see Drake, Eric*

**Drennan, Robert (University of Pittsburgh) [192]** *Discussant*; [45] *Discussant*; [7] *Discussant*

**Drew, Natalie (US Army Corps of Engineers, St. Louis District) [127]** *Discussant*

**Drew, Rose (University of York/Yale Peabody Museum)**

[166] *From Saladoid to Taino: Human Behaviour from Human Remains in the Greater Antilles*

I will discuss the information human remains can impart on prehistoric South American immigrants who traveled up the Antilles. Venezuelan Saladoid materials recently analyzed at the Peabody Museum support my findings that the oldest skeletons from Puerto Rico, from the deepest burials in clean sand below Saladoid middens were rather robust, tall people. They were overall healthier than contemporaries living on smaller islands such as the Bahamas, as access to rivers and various ecozones provided adequate food and untainted water. Regarding later Caribbeans, the Taino had told Columbus they had no slave caste, and their bones bear this out.

**Driver, Jonathan (Simon Fraser University) and Woiderski, Joshua**

[144] *Interpretation of Prehistoric Leporidae Frequencies in the North American Southwest*

The "lagomorph index" has been used to calculate ratios of cottontails (*Sylvilagus* sp.) to jackrabbits (*Lepus* sp.) in faunal assemblages from northern Mexico and the southwestern United States. After a brief discussion of the best way to calculate the index, we review hypotheses to account for variation in the index over space and time. Once environmental factors have been taken into account, human behavior may be implicated. However, we critique the hypothesis that high values for jackrabbits are indicative of landscape alteration caused by intensive horticulture.

**Driver, W. David [87]** *see Kosakowsky, Laura J.*

**Drollinger, Harold [6]** *see Beck, Colleen*

**Dublin, Susan (Croton Point Nature Center)**

[151] *Empire's Lens*

The American western interprets Native American history and culture within a framework of

"manifest destiny," the ideological structure of United States empire building. This example of material production of empire focuses on the 19th and 20th century Plains and Southwest. Commentary set against a background of Native American story-telling art and historical archaeology raises questions about the participation of popular culture in the furtherance of expansionist goals. What are the contrasts (and lacunae) in the various media? Have cinematic perspectives truly changed or have perceived changes merely shifted focus on the larger questions of agency and domination in American society?

**Dubreuil, Laure (McGill University) and Grosman, Leore (Hebrew University)**

[61] *Ground Stone Tools from the Natufian Cave site of Hilazon Tachtit (Israel): Skin Working with Ochre*

Understanding Natufian settlement patterns is crucial for unravelling the transition from hunters-gatherers to farmers in the Near East. The excavation of the Hilazon cave provided new data supporting the hypothesis that sites devoted to symbolic activities emerged during the Natufian. This might indicate a shift in the exploitation and ownership of the landscape. This study presents a use-wear analysis of grinding-stone tools from Hilazon, which provides additional data on the site function. No indication of food processing has been observed in our sample. Evidence of skin working with ochre supports the current interpretation of the site.

**DuChemin, Geoffrey (University of Florida)**

[239] *Rodent Cuisine at Palmetto Junction, Turks and Caicos Islands: Pre-Columbian Human Maintenance of Mammal Populations?*

The discovery and excavation of Palmetto Junction, a late pre-Columbian archaeological site on the island of Providenciales in the Turks and Caicos Islands, revealed the first evidence of the intensive exploitation of the Bahamian hutia (*Geocapromys ingrahami*). A large number of individuals of this rodent were recovered from excavated midden contexts. Although never fully domesticated, other species of hutia (*Isolobodon portensis* and *Geocapromys brownii*) recovered from sites on Puerto Rico and Jamaica suggest evidence of human maintenance. This presentation explores the possibility that the island's inhabitants tended or maintained captive hutia individuals at the site.

**Duchemin, Geoff [89] see LeFebvre, Michelle J.**

**Dudgeon, John (University of Hawaii)**

[50] *Indicators of Prehistoric and Protohistoric Demography from Easter Island*

Previous research on health, relatedness and diet of contact-era populations of Easter Island has primarily focused on macro-scale morphological evidence from skeletal collections. New research questions and methodological approaches aimed at estimating micro-scale variation generate substantively different paleodemographic implications for models attempting to explain the human skeletal record of Rapanui. Such estimates are critical for evaluating alternative models of colonization, growth and attrition, especially as they pertain to questions of ecological and demographic 'collapse'. As the technical sophistication of our estimates grow, it is becoming apparent that a new understanding of the human population history of Easter Island is warranted.

**Duff, Andrew (Washington State University)**

[110] *After Broken K: Social Organization in Fourteenth Century Communities in Eastern Arizona*  
Rooted in the approach Hill advocated and employed at Broken K, the results of a regional study of ceramic production and exchange are used to reconstruct aspects of "the internal structure and social organization" of 14th century Puebloan villages in the Upper Little Colorado River valley. Ceramic compositional and stylistic data, when combined with architectural and temporal patterning, inform propositions about integration at different social scales within and between villages. The lasting contributions of Hill's work are evidenced in contemporary research that echo the aims of his pioneering analyses of material from Broken K.

**Dujnic, Teresa (University of California, Berkeley)**

[186] *Social Identity and Medicinal Practice at the African Meeting House*

Social identity remains a relevant concept in the analysis of Boston's 19th-century African American community. This community established itself through the active communications of group identity in venues such as the creation of social institutions, active participation in consumer markets, and the synthesis of new medicinal systems. This paper will utilize documentary and archaeological evidence from the African Meeting House to explore how medicinal practice may have had a role in the expression of African American social identity of respectability, equality, and citizenship in 19th-century Boston.

**Dunbar, James S. [248]** *see Newman, Christine L.*

**Duncan, Joshua (William and Mary) and Gallivan, Martin (William and Mary)**

[243] *Competitive Cycling in the Middle Woodland Virginia Tidewater: The View from Maycock's Point*

Hantman and Gold recently proposed a model of precontact Middle Atlantic regional interaction in which trade in stone and ceramic vessels and status marking through mortuary ritual fueled a persistent pattern of competitive cycling. The Maycock's Point site in the James River coastal plain contains Middle Woodland deposits dating to AD 200 - 900 appropriate for testing these ideas. We compare patterns related to ceramic vessels (including Abbott Zoned pottery), sedentariness, settlement size, and subsistence at Maycock's Point with contemporaneous sites in the region in an effort to operationalize, evaluate, and extend the competitive cycling model in a Virginia Tidewater context.

**Duncan, Joshua [243]** *see Madden, Michael*

**Duncan, Neil (University of Missouri-Columbia)**

[167] *Paleoethnobotany of Ritual Contexts at the Fox Temple of Buena Vista*

The ubiquity of cultivated plant and marine foods at Buena Vista indicates a subsistence economy based on early flood-plain agriculture supplemented with maritime resources. Architectural fill and domestic contexts provided rich assemblages of cultivated utilitarian and food plants and varieties of marine resources. However, within the ritual context of the Fox Temple marine resources are scarce while plant offerings comprise the bulk contents of the offering pit. This paper will outline the preliminary plant macro- and micro-remains identified and offer an hypothesis that plant resources in ritual contexts at Buena Vista symbolize the importance of an emerging agricultural life way.

**Dunning, Nicholas [87]** *see Beach, Timothy*

**Dunning, Nicholas P. (University of Cincinnati), Jones, John G. (Washington State University), Chmilar, Jennifer (University of California - Riverside) and Blevins, John Mark (University of Cincinnati)**

[48] *Paleoenvironmental Investigations near San Bartolo, Peten, Guatemala: 2005*

Paleoenvironmental investigations were initiated around San Bartolo in 2005.

Geoarchaeological excavations were undertaken in several bajos in the area. One small bajo produced clear evidence of having transformed from a perennial wetland into a seasonal swamp during the Maya Preclassic; data from the other bajos are more varied and problematic. Evidence of significant environmental instability was also recovered in excavations along small stream channels. Excavation and coring in three aguadas revealed considerable differences in their use and maintenance as water sources.

**Dussubieux, Laure [105]** *see Billeck, William*

**Duwe, Samuel (University of Arizona)**

[153] *Pondering Provenance and Technology: Chemical Characterization of Copper Age Daub, Ceramics, and Raw Material Sources in Southeastern Hungary*

Chemical and mineralogical investigations indicate that although clay is relatively homogeneous across the Great Hungarian Plain, there is enough micro-variation to begin to understand the provenance of ceramic vessels and architectural daub. This project examines the trace chemical composition of pottery, daub, and clay raw material across the Körös Region using laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS) to delineate the feasibility of interpreting networks of exchange and mobility. A secondary goal compares daub and pottery to understand the chaîne opératoire, or technological sequence, in architectural and potting uses of clay resources.

**Eary, John [97]** *see Kraushaar, Angelica*

**Ebbitt, Alicia (Indiana University)**

[189] *Fifteen Years of Sharing History: The Changing Faces of Archaeology Education and Community Involvement at Chau Hliix, Belize*

This paper discusses the 15 year development of public outreach, education, and tourism



initiatives at the Chau Hiix site located near Crooked Tree Village, Belize. Early educational activities included informal school visits, open houses, and information booths at local festivals. In the spring of 2005, project members developed signage and tourism booklets for guides in Crooked Tree and a more formalized educational program was initiated at the local school. Public archaeology and applied anthropology have brought Crooked Tree villagers and archaeologists closer together, with the ultimate goal of incorporating and respecting multiple perspectives and stakeholders in interpretations of the past.

**Ebbitt, Alicia [6]** *see McGill, Dru*

**Eberl, Markus (Tulane University)**

[156] *Divide and Rule! How the Classic Maya Kingdom of Dos Pilas Became a Regional Power*  
The Classic Maya kingdom of Dos Pilas was founded during the seventh century AD and it became within two generations a regional power with wide influence in the Maya lowlands. Recent research at the site of Dos Ceibas south of Aguateca, the twin capital of Dos Pilas, suggests the presence of a royal administrator. The royal court of Dos Pilas was likely only the hub of regional hierarchy of administrators and semi-autonomous nobles. It cannot be reduced to its material setting -- palaces and temples at a capital --but must be understood from a regional perspective.

**Echevarría, Gori Tumi (Universidad Nacional Mayor de San Marcos) and Anderson, Karen (University of California, Santa Barbara)**

[69] *Advances in Methodology for Architectural Analysis: The Case from Piñami, a Middle Horizon Site in Cochabamba, Bolivia*

In this paper new standardized methods for architectural analysis are presented and applied using data from excavations at the site of Piñami, a long-term habitation mound in Cochabamba, Bolivia. The intention is to develop a single approach to document design and construction techniques applicable to a wide variety of architectural features. Use of these procedures at Piñami demonstrate the value of this methodology to highlight comparative data between architectural forms over time. The theoretical strength of this methodology is that it provides a standardized language for detailed architectural analysis useful in any archaeological site type, geographic region or time period.

**Eckert, Suzanne (Texas A&M University)**

[75] *The Mimbres Kachina Cult Revisited*

I revisit Carlson's suggestion that aspects of katsina ceremonialism was present among the Mimbres, some 200 years prior to when this religion is believed to have originated among the Pueblo peoples. While Carlson focused on iconography, I examine other aspects of pottery design, color combinations, and architectural features. I argue that the suite of attributes associated with katsina ceremonialism in the Western Pueblo region is also present in the Mimbres area. As such, archaeologists need to address how we identify the katsina religion archaeologically and/or the temporal gap between similarities in material culture from the Mimbres and Western Pueblo regions.

**Eckert, Suzanne [204]** *see Johnson, Phillip*

**Edwards, Joshua (SWCA Environmental Consultants)**

[165] *Animal Offerings and Pit House Abandonment in the Chinle Valley*

Excavations at two sites near Chinle, Arizona, revealed interesting abandonment offerings of dogs and turkeys placed in the ventilator shafts of two pit houses. These features are compared with other examples of abandonment rituals in the Southwest in both different regions and time periods.

**Edwards, Matthew (University of California, Santa Barbara)**

[68] *Prehistoric Antiquarianism? Results from the 2005 Field Season at Collota, Cotahuasi Canyon, Perú*

Excavations during the 2005 field season at the presumed Middle Horizon site of Collota, located in Cotahuasi Canyon, Perú yielded interesting and unexpected results. Most notably the temporal position of the site, based previously on architectural clues consistent with Wari architectural canon, appears to have been misdiagnosed. The structure can now be more securely attributed to the Late Horizon. This paper reports results from the excavations, discusses the broader anthropological implications of these data, and poses possible explanations for what appears to be a deliberate architectural referent to earlier times in a remote province of the Inca Empire.

**Edwards, Yvonne [61]** *see Goodale, Nathan*

**Effros, Bonnie (Binghamton University)**

[211] *Interdisciplinary? Historians, Archaeologists, and the Interpretive Challenges Posed by Early Medieval Mortuary Customs*

During the past thirty years, scholars of early medieval mortuary rites have recognized the necessity of adopting multi-disciplinary approaches in order to view as a whole the fragmentary evidence. This response, while slow in coming, has brought about important changes in the way in which burial sites are studied, the remains collected and processed, and ultimately their significance interpreted. Yet, interdisciplinary research is not without its own pitfalls, and scholars have become increasingly wary of making assumptions about the reliability of evidence processed in fields outside their areas of expertise. This paper will outline some of the current and historic challenges facing early medieval specialists and how scholars have sought to accommodate and/or adapt to these altered circumstances.

**Egan-Bruhy, Kathryn [178]** *see Smith, Beverley*

**Ehrhardt, Kathleen L. (Illinois State Museum)**

[229] *Consuming Copper in the Early Contact Period: Evidence from the Iliniwek Village, Clark County, Missouri*

In recent years, archaeologists have dislodged many entrenched ideas and contributed much new scholarship concerning how and why native peoples sought out and used copper-base metal objects offered to them by Europeans. Questions about this material's role in native life and in post-contact change have taken center stage. In this paper, I examine how the over 6,000 copper-base metal artifacts recovered from the Iliniwek Village, Clark County, Missouri (mid-seventeenth-century Illinois) are distributed over the site. Findings are integrated with ethnohistoric evidence to shed light on social processes of consumption, including selection, appropriation, transformation, circulation, even rejection of this important metal.

**Ek, Jerry (University at Albany-SUNY)**

[49] *Classic Maya Urbanism: A GIS Approach to Site Planning, Demography, and Integration*

This paper presents a comparative, quantitative analysis of site planning principles and the integration of Classic Maya urban centers and surrounding settlement zones. This investigation utilizes GIS databases from several large centers to assess and revise current models of Maya urban form and function. With these data, I will examine the distribution of various types of residential, administrative, and public features outside site epicenters. The results of this analysis challenge some common conceptions about the demography, status hierarchy, and integrative features in large Maya centers. These findings have implications for understanding how urban zones functioned as administrative, religious, and economic centers.

**Elam, Michael [44]** *see Fayek, Mostafa*

**Elias, Scott [66]** *see Hoffecker, John*

**Elliott, Gabrielle (BLM) and Gardner, Dudley (Western Wyoming Community College)**

[160] *Tracing Archaeoclimatic Changes through the Fremont Granaries on the Colorado Plateau*

Fremont granaries constructed in northwest Colorado between 700 AD and AD 1100 possess distinct morphological characteristics that indicate some may have been used to store seeds, others to store grain. Analysis of the nature and type of corn cobs found inside these granaries are providing us with unique insights into then existing climactic conditions such as annual precipitation as well as some of the attributes of the corn grown in this relatively cool dry higher elevation. This paper will summarize the results of research undertaken over the last six years.

**Elliott, Michael (Jemez Mountains Research Center)**

[129] *History of Archaeological Research and Thought in the Jemez Province, North-Central New Mexico*

Archaeological research in the Jemez Province of North-Central New Mexico began with visits by Adolph Bandelier and others in the late 1800s. Excavations at pueblo and mission sites in the area peaked during the period 1921-1940. A long hiatus was only interrupted when much of the land was acquired by the U.S. Forest Service, which began conducting cultural resources management activities, including survey and excavations. Recent work has included some

academic research and continued CRM-related projects. Archaeological thought in this region has mirrored that in other areas, with similar changes of focus and interpretation through time.

**Elliott, Michelle (Arizona State University/UNAM), Turkon, Paula (Ithaca College), Riel-Salvatore, Julien (Arizona State University) and Nelson, Ben (Arizona State University)**

[158] *Understanding the Social Organization of Maguey Processing in the Malpaso Valley, Zacatecas, Mexico, AD 500-900*

Macrobotanical analyses demonstrate that the inhabitants of the Malpaso Valley of northwest Mexico utilized maguey, although the social organization of its production and use remains unclear. We examine tools and botanical materials related to maguey use recovered from a variety of the valley's sites, representing a range of social contexts. Specifically, we use residue analyses and Scanning Electron Microscopy (SEM) to identify the presence of maguey in primary and secondary refuse contexts. Considered in the valley's larger paleoecological context, these lines of evidence yield new insights about maguey production at various levels of the valley's social hierarchy.

**Elliott, Michelle [216] see Fisher, Christopher**

**Ellison, LeighAnne (Northern Arizona University)**

[234] *Ceramic Production at the Polity Level: Organization of an Agrestic Political Economy in the Late Classic Middle Chamelecon Drainage, Honduras*

This paper proposes a model describing motivations for pre-hispanic rural ceramic production through an analysis of material remains from several small settlements surrounding the Late Classic (AD 600-800) agrestic center of Las Canoas, NW Honduras. The focus here is on the contributions of rural people to social and economic systems that encompass populations residing within the political capital as well as at other sites scattered throughout that center's hinterland. The light cast by this study on the varied ways in which craft specialization can be structured at the site and polity level is considered.

**Eltsov, Piotr (Harvard University)**

[63] *The Archaeological Significance of the Gomal Valley: New Perspectives*

The subject of this paper is the archaeological significance of the Gomal Valley, NWFP, Pakistan. Located on the margins of South Asian subcontinent, the Gomal Plain was an important passage way from Central Asia and the Iranian Plateau to Punjab, Sind, and Rajasthan for many centuries. Recent archaeological explorations in the Gomal Valley reconfirm its significance and shed new light on the questions such as the mechanisms of the Harappan urbanization, the relations between the Pre-Harappan and Harappan cultures, the expansion of the Harappan civilization, and the cultural interaction within the Indo-Iranian Borderlands from the Neolithic to Iron Age periods.

**Ely, Lisa (University of Connecticut), Gabany-Guerrero, Tricia (University of Connecticut), Bohrsen, Wendy (Central Washington University), Buswell, Tessa (Central Washington University) and Diefenbach, Angela (Central Washington University)**

[65] *La Alberca Geology and Geomorphology*

Volcanological and geomorphological investigations suggest an implosion created La Alberca caldera. Distinctive flat volcanic rocks were utilized as facing stones in nearby yacatas, with only identified source in surrounding highland region is exposed walls of this caldera.

Tephra/sediment studies reveal local environmental changes from 8000 years ago to present. Throughout this time, caldera contained a seasonal pond, potentially influencing the human and wildlife site use. Although variations rainfall are significant, regional soil/vegetation changes were primarily influenced by tephra deposition, erosion and re-deposition. Region-wide climatic change may have influenced expansion of populations into volcanic mesa lands.

**Ember, Carol [240] see Ember, Melvin**

**Ember, Melvin (HRAF) and Ember, Carol (HRAF)**

[240] *How Comparative Ethnography and Archaeology Could Establish the Original Homelands of Proto-Indo-European and Proto-Afroasiatic*

The most frequent kind of cross-cultural research, especially now with eHRAF Ethnography, uses worldwide ethnographic information to test hypotheses about cultural variation and evolution. Now, with eHRAF Archaeology, we can also easily use worldwide archaeological

information to study cultural evolution. In combination, these two kinds of cross-cultural research can provide a "Rosetta Stone" for inferences about cultural evolution. In particular, we argue here that these two kinds of cross-cultural research can help us find the original homelands of Proto-Indo-European and Proto-Afroasiatic.

**Emerson, Thomas E. [74]** see *Wisseman, Sarah U.*

**Encinas Hernández, Ivon Cristina [181]** see *Malbrán Porto, América*

**Eng, Jacqueline T. (University of California, Santa Barbara)**

[10] *Health Effects of the Han Dynasty Collapse on a Peripheral Population in Northeast China*  
Following the Han Dynasty (206 BC-AD 220) collapse, many non-Chinese tribes fought for rulership in northern China. Bioarchaeological analysis of nearly 500 individuals who lived during this period in the peripheral northeast provides insight into the physiological effects of political upheaval, and also the health consequences of a shift to an agricultural lifestyle upon a formerly pastoral population. While grave goods such as horse-riding equipment and implements of farming and warfare offer perspective into their lives, skeletal markers of stresses experienced during childhood, and through dietary deficiencies, trauma, and osteoarthritis give testament to the health challenges this population faced.

**Enloe, James (University of Iowa)**

[135] *Refitting Bones: Negative Evidence, Site Structure and Social Organization*  
Bone refitting and individual carcass re-assembling can inform us about technological processes of prey carcass treatment, including transport, butchering and consumption. Moreover, spatial aspects of consumption patterns can lend insight into economic and social organization. The relative position of the archaeological site in the sequence from acquisition to discard may largely determine the probability for meaningful mechanical, articulating and bilateral refitting of faunal skeletal elements. Presence or absence of such refits may help us in determining that relative position of the site across the landscape. Examples from the late Upper Paleolithic are used to explore site function and demography.

[76] see *Woods, Alexander*

**Enrile, Margaret B. (University of Illinois, Urbana-Champaign)**

[51] *Late Intermediate Period Dynamics as Seen from the Huaura Valley, Peru: Situating Micro-scale Events within Macro-regional Histories*

The Late Intermediate Period (ca. AD 1000-1450) is characterized as a time of relatively isolated local polities. New research on the north-central coast suggests greater interaction between "local societies" than has been recognized. Widespread similarities in material culture have masked evidence of social and political tensions in this region. Investigations at Acaray (Huaura Valley) test the proposition that interaction between the Central Coast, Huaura groups, and North Coast polities involved conflict. This paper presents data from Acaray that addresses the nature of these regional relationships. I emphasize that a multiscale approach is crucial to understanding both macro-regional and local histories.

**Enríquez Ortiz, Amalia (Proyecto Arqueológico Calakmul, México)**

[208] *Los Sistemas Constructivos en Calakmul: Nuevas Perspectivas en la Continuidad Cultural del Preclásico al Clásico Maya*

La presente ponencia plantea una continuidad cultural en los sistemas constructivos, proponiendo que estos procesos se reflejan en la arquitectura del periodo Clásico, los cuales ya estaban consolidados desde el Preclásico Medio. Se tiene conocimiento que el desarrollo de lo maya tiene sus antecedentes en cultura olmeca. Consideramos que desde sus inicios los sistemas constructivos, que los mayas adoptaron, modificaron y desarrollaron se emplearon desde el Preclásico Medio. Es importante mencionar que entre los sistemas constructivos, como la bóveda de cañón corrido, que permitieron grandes manifestaciones en la arquitectura clásica, no fueron desconocidos para los mayas de Calakmul.

**Ensor, Bradley (Eastern Michigan University)**

[174] *Islas de Los Cerros: A Formative to Late Classic Coastal Site Complex in Tabasco, Mexico*

Islas de Los Cerros is a large prehispanic Gulf Coast site complex occupying five islands and a peninsula at the conjoining mouths of the Mecoacan Lagoon and the Seco River, approximately 14 km downriver from the large regional center of Comalcalco. Based on ceramic pastes and

decorative styles, the complex was occupied during the Middle to Late Formative periods, and again during the Classic to Late Classic periods. This paper summarizes observations and interpretations on the settlement history, settlement patterns, and material culture observed in recent survey and excavations at Islas de Los Cerros.

**Entwistle, Jane A. (Northumbria University, UK), Dodgshon, Robert (University of Wales, Aberystwyth, UK) and Abrahams, Peter (University of Wales, Aberystwyth, UK)**  
[185] *Geochemical Traces of Landscape Change in the Ben Lawers Area of the Scottish Highlands*

The Ben Lawers Historic Landscape study is a multi-disciplinary project to investigate the evolution of the Loch Tay cultural landscape. A mid-eighteenth century survey reveals a landscape of settlements with associated arable infields/outfields. Establishing the location of settlement prior to the eighteenth century is challenging because of the perishable character of turf-based buildings. The infield lay close to the main settlements, developing from older areas of cultivation. Given the high level of nutrient transfers onto arable we might expect evidence of anthropogenic modification, with older areas of cultivation potentially showing greater impact. The results of soil geochemical analyses are presented.

**Erdman, Katherine (Grand Valley State University), Schwartz, Mark (Grand Valley State University), Rothman, Mitchell (Widener University) and Morison, Melissa (Grand Valley State University)**

[232] *Migration, Diffusion, Emulation: A Petrographic Analysis of Transcaucasian Pottery from Malatya, Turkey*

During the fourth and third millennia BC, evidence of Transcaucasian culture appears throughout much of Eastern Anatolia. Migration, diffusion, and emulation are the leading theories to explain the presence of Transcaucasian culture in this region, in particular, the distinct black burnished pottery type associated with this culture. This paper focuses on the preliminary results of a petrographic analysis of pottery from Malatya-Elazig region of Turkey. Our results demonstrate the utility of this method in analyzing this problem and provide suggestive results as to the nature of Transcaucasian material culture in Anatolia.

**Eren, Metin (Southern Methodist University) and Prendergast, Mary (Harvard University)**

[133] *The Reduction Rumble! A Comparison of Reduction Values, Means, and Ranges*

Intensity of stone tool reduction has important implications for understanding hominid behavior, tool use and modification, mobility, and land use. There are a variety of reduction indices available to the lithic analyst. While each has strengths and weaknesses, different index values obtained on the same stone tools do not necessarily correlate with each other. Vastly different interpretations of an assemblage may be made depending on the analysts choice of reduction index. In this paper we demonstrate this point by presenting different reduction indices calculated for both an experimental assemblage and a sample from the La Colombiere Perigordian assemblage.

**Erickson, Clark (University of Pennsylvania)**

[90] *Pre-Columbian Wetland Engineering in the Cultural Landscapes in the Bolivian Amazon*

Wetlands are among the most fragile and biologically diverse environments. Pre-Columbian farmers transformed many of the savannas of the Llanos de Mojos into a highly productive aquatic landscape through a coordinated program of regional-scale engineering. Through the lens of historical ecology, key elements of the technology that are embedded in the landscape palimpsest can be recovered. By creating a complex interface of terrestrial and aquatic micro-topography and hydraulic infrastructure, farmers efficiently managed seasonal water resources and harnessed solar energy for subsistence and surplus production. The complex cultural patterning of these anthropogenic landscapes demonstrates human agency, intentionality, and sophisticated indigenous knowledge.

**Erickson, David [109] see Tuross, Noreen**

**Erlandson, Jon (University of Oregon), Braje, Todd (University of Oregon), DesLauriers, Matthew (University of California, Riverside), Rick, Torben (Southern Methodist University) and Vellanoweth, Rene (Humboldt State University)**

[8] *Paleocoastal Occupations on the Islands of California*

Archaeological research on islands off the Pacific Coast of Alta and Baja California has produced a remarkable series of shell middens and other sites created by Paleocoastal peoples

between about 13,000 and 8000 years ago. In this paper, we explore the context, contents, and implications of these early sites, which provide some of the earliest evidence for seafaring and maritime adaptations in the Americas. Along with evidence for island colonization and shellfishing by Paleoindian peoples, these island sites have produced the earliest fish hooks known from the Americas.

**Erlandson, Jon [44]** *see Culleton, Brendan*; **[89]** *see Braje, Todd*

**Ernenwein, Eileen [163]** *see Koons, Michele*

**Erwin, John (Memorial University of Newfoundland)**

[74] *Dorset Palaeoeskimo Quarrying Activities in Fleur de Lys, Newfoundland*

Dorset Palaeoeskimo soapstone quarrying is described in four stages, including quarry face preparation, preform isolation, preform extraction and vessel finishing. Quarrying tools are expedient, made from local materials, and are defined on the basis of their morphology, breakage patterns, and use. The functions of vessels are inferred from size, shape and residue patterning. The recognition of "little pots" also provides evidence for the presence of children at the quarry, who were likely imitating the work of their parents, and learning something of the quarrying process.

**Esh, Kelley (University of Hawaii)**

[50] *Faunal Remains from Recent Excavations at Anakena Beach, Rapa Nui (Easter Island)*

Excavations conducted by the University of Hawaii Rapa Nui Archaeological Field School in 2004 and 2005 have revealed a well-preserved faunal assemblage at Anakena Beach. This paper will present an analysis of the faunal remains, and discuss the implications for prehistoric subsistence on Rapa Nui.

**Espenshade, Christopher (Skelly and Loy, Inc.)**

[176] *The View from PO-21: Federal Compliance as a Stimulus in Caribbean Archaeology*

The initial wave of mainland firms working on federal projects in Puerto Rico was viewed by some as the usurping of cultural patrimony, and by others as gringos lining their pockets at the expense of Caribbean heritage. In retrospect, it is argued that the significant expansion of Corps of Engineers projects in the 1980s and 1990s provided a stimulus to the maturation of Caribbean archaeology. The PO-21 project is discussed as just one of the many projects that helped grow the discipline.

**Espinosa, Manuel Eduardo [103]** *see Domínguez, María del Rosario*

**Estrada-Belli, Francisco (Vanderbilt University)**

[9] *State Societies in Southeastern Coastal Guatemala: Continuity and Disjunction in a Land of Plenty*

In the section of coastal Pacific Guatemala east of modern-day Escuintla and west of the border with El Salvador over 150 new sites were documented by field survey and excavations in the late 1990s inspired by Fred Bove's surveys in Escuintla. These produced a mass of data on the development of complex societies from the earliest times documented anywhere in coastal Mesoamerica to the Spanish conquest. The continuity in high-integration of local polities with other Mesoamerican states by long-distance trade and elite interaction confirm several of Fred Bove's original models on coastal Guatemalan prehistory.

**[208]** *see Neivens de Estrada, Nina*; **[238]** *see Tokovinine, Alexandre*

**Eubanks, Tom (Louisiana Division of Archaeology) and Tarpley, Mike (Louisiana Army National Guard)**

[97] *Government to Government Consultation for the Inadvertent Discovery of Native American Remains at Fort Louisiana*

In spring 2004, two human burials were inadvertently discovered under a Louisiana National Guard facility in New Orleans. Protocols established in Programmatic Agreement with Federally Recognized Tribes and the Louisiana SHPO were implemented. Consultation was initiated under the PA and the Louisiana Unmarked Human Burial Sites Preservation Act. Agreement was reached by all parties to recover the human remains for reburial in an appropriate location. The history of the discovery and results of the consultation process are presented here.

**Evans, Amanda (Louisiana State University/Tesla Offshore)**[227] *When "X" Doesn't Mark the Spot: Identifying Illicit Trade on the High Seas*

Archaeological and historical research suggests that smugglers and pirates provided necessary commodities to under-served markets in the colonial Caribbean, but it is difficult to quantify the extent of illegal trade. Shipwreck sites could potentially yield information on the scope of illicit trade, but confusion exists in distinguishing legitimate merchant wrecks from those of smugglers. This paper will outline specific modifications made to ships used for smuggling and carrying illicit goods that could distinguish them from merchant vessels. Once identified, these modifications will be compared to excavated colonial Caribbean shipwrecks to determine the feasibility of definitively identifying smuggling vessels.

Evans, Jane [141] *see Hughes, Susan S.***Evans, Susan (Penn State University)**[236] *Untangling the Net Jaguar: The Iconography of Urban Renewal and Agricultural Intensification at Teotihuacan, Mexico*

Net jaguars are peculiar to Teotihuacan imagery, and are depicted in the iconographically complex Murals 7 and 8 in the Tetitla compound. There, elaborately costumed net jaguars face temples that are upholstered in jaguar skin. While art historical analyses of these murals have focused on the abstract meaning of the symbols they present, recent archaeological evidence about the timing of Teotihuacan's program of urban development and the systemization of its canals, along with indications of possible climate change, reveal another dimension of meaning: the reverence for water from the earth, an essential component in Teotihuacan's changing program of land use.

[193] *Discussant*Evins, Gloria [9] *see Gasco, Janine*Ewen, Charles R. [227] *see Skowronek, Russell K.***Faber-Morse, Birgit (Yale Peabody Museum)**[166] *A Comparative Ceramic Analysis of St. Croix Collections at the Yale Peabody Museum and Other Institutions*

The artifacts from the St. Croix collections at the Yale Peabody Museum have been analyzed and compared with four other St. Croix collections from major institutions and their typology established. Recently fifty ceramic samples from the Yale collections were chosen for Instrumental Neutron Activation Analysis (INAA) which so far is the most accurate and precise chemical technique available for ceramics and should be able to give us many new answers.

**Fadem, Cynthia (Washington University in St. Louis) and Smith, Jennifer (Washington University in St. Louis)**[204] *Preliminary Geoarchaeology of the Danilo Bitinj Site, Dalmatia, Croatia*

The Danilo Bitinj site is located in Danilo Polje, an elongate karstic valley in coastal Croatia. The site was occupied and the soils used agriculturally beginning in the early Neolithic. The Mediterranean moisture regime (with cool, wet winters and hot, dry summers) and the local predominance of fine-grained sediments provide that these soils currently retain sufficient moisture for year-round plant growth. This moisture retention may have enabled the site to remain productive prehistorically in times of resource stress. The current study aims to inform interpretation of both site formation processes and paleoenvironmental conditions through analysis of soil biophysical properties.

**Fahmel, Bernardo (IIA - UNAM)**[181] *Impressions of Pandora's Visit to the Central Valleys of Oaxaca*

En busca de la Arqueología, o Tratado de las Cosas Antiguas de Oaxaca, se emprende un tortuoso camino que al parecer nunca llega a su destino final. Sin embargo, el trayecto es escenario de personajes y encuentros que mantienen vivo el anhelo de mucha gente - gente que hoy se pregunta si de algo sirvió el ir y venir de tantos investigadores.

**Fairchild, Joshua (East Carolina University) and Perry, Megan (East Carolina University)**[10] *Pastoralism in Pax Romana: The Bioarchaeology of a Nomadic Community*

Examining the interaction between the diverse indigenous populations of the Near East and the Roman administration along the eastern frontier of the Roman Empire provides a case study of

the intersection between politics and human biology. In 1976 and 2002, the Jordanian Department of Antiquities excavated an Early Roman cemetery near Amman, Jordan containing the burials of a pastoral nomadic community. Frequency of non-specific indicators of stress in this cemetery was compared with regional samples within the context of archaeological and historical data in order to understand access to resources within these communities and relations with the Imperial administration.

**Falconer, Steven [220]** *see* Barton, Michael; [232] *see* Berelov, Ilya

**Falk, Carl [78]** *see* Ahler, Stanley

**Fall, Patricia [220]** *see* Barton, Michael; [232] *see* Berelov, Ilya

**Fang, Hui [103]** *see* Bowers, Robert; [194] *see* Lanehart, Rheta E.

**Fargher, Lane (Purdue University)**

[240] *A Comparison of the Spatial Distribution of Agriculture and Craft Specialization in Four Regions*

The long-term evolution of states and complexity in human societies creates demand for labor and surplus production. These new demands, in turn, stimulate household and regional economic changes, including agricultural intensification, demographic change, change in land tenure, urbanization, and craft specialization. In this paper, I construct a geo-economic model of these changes based on the comparison of four cases, from England, France, Central Mexico, and the Valley of Oaxaca. The resulting model predicts the development of a regional division of labor and sub-regional variation in specializations based on environment and resources under these demand conditions.

**Farnsworth, Kenneth B. [74]** *see* Wisseman, Sarah U.

**Farnsworth, Paul (LSU)**

[122] *Integrating the Documentary and Material Records of the California Missions*

The Spanish in California left a detailed textual record of their economic accomplishments but a limited, highly biased, record of the Native Americans in their mission system. Analysis of economic records, combined with missionaries' letters, has allowed reconstruction of changing Spanish goals regarding the Native Americans between 1769-1834 while the mission system operated. This was then used to examine the material record from archaeological excavations at mission sites, especially Mission Soledad, to identify arenas of daily life in which Native Americans complied with or resisted the Spanish as they strove to maintain their identity and cultural heritage.

**Farnsworth, Paul [186]** *see* Wilkie, Laurie A.

**Farnum, Julie (Montclair State)**

[21] *Sicán Women: Interpretations of Status, Health, and Violence*

Fifty two adult females from the Middle Sicán Capital (CE 1100) and the Sicán affiliated El Brujo site were examined for pathologies related to occupational health and trauma. Several healed blunt trauma cranial lesions were found at both sites. Hand and foot pathologies were quite common especially among women who appear to be non-local. Different degrees of healing of traumas were noted by social class, with commoners showing the lowest degree of healed fractures. The paleopathological evidence suggests that violence against women was present regardless of class, but that degree of healing and survival likelihood was influenced by social class.

**Fash, Barbara (Harvard University)**

[210] *Ahead of Its Time: "Postclassic" Highland Deities in Copan Architectural Sculpture*

The sculptured facades of several prominent buildings in Copan display numerous highland deity motifs that reappear centuries later in Postclassic cultures of the Basin of Mexico. These large and numerous elements represent a paradox because some appear to make their first appearance in Late Classic Maya sculpture, one hundred years after the demise of Teotihuacan. Their close similarities with later Postclassic Mexican sculptures suggest that pilgrims and merchants from the central highlands continued to visit Copan. The architectural sculpture of the "Tollan of the East" may have served as a source of inspiration for Postclassic artisans.



**Fassero, Anthony (CyArk), Ristevski, John (University of California, Berkeley) and Upton, Samuel**

[69] *Practical Applications of High Definition Survey: The Rocas Conduit of Chavin de Huantar, Peru*

This research explores the practical uses of high definition survey techniques to complement and improve upon existing archaeological field methods at Chavin de Huantar. A Leica HDS 2500 scanner was used to comprehensively map both above and below ground surfaces, facilitating the juxtaposition of architectural features, successfully projecting new perforations into collapsed areas of the conduit and providing overburden data to assist in structural analysis and restoration.

**Faught, Michael (Panamerican Consultants, Inc.)**

[66] *Roots of Human Diversity in the New World: The Distributions of the Earliest Sites*

Averaged radiometric data from 40 sites producing two or more samples each suggest early human populations accumulated from three geographically disparate areas of the Western Hemisphere after 12,500 BP. These areas include Alaska, the Southern Plains of North America, and southwestern South America. The earliest of these archaeological sites are essentially contemporaneous and they distinguish at least three separate problems of the early peopling process, they suggest more potential cultural diversity than is usually considered, and they increase the probability that pathways other than Beringia were taken for first entry into the hemisphere.

[242] *see Waggoner, James; [66] see Anderson, David*

**Fauman-Fichman, Ruth (University of Pittsburgh)**

[247] *A Comparative View of Human Influence on the Environment in the Collapse of Ancient Complex Societies*

In the discussion of societal collapse, explanations seesaw between polar camps that Smith and Schreiber (in press) call environmentalists and culturalists. There is increasing scientific evidence of cataclysmic environmental events that had impact on human complex societies. Cause and effect of human behavior on climatic and environmental events are frequently confused or not well articulated. A methodology is needed that operationalizes human political, technological, economic and social decisions that precipitated collapse or mitigated environmental effects. Using a comparative approach, this paper will review several case studies and suggest approaches for investigating human action and reaction to environmental events affecting collapse.

**Faust, Kata A. (University of California, Riverside)**

[147] *In Search of Identity and Political Economy: A Comparative Study of the Anthropomorphic Figurines and Sculptures of the Huasteca*

Analyses of pre-Columbian Huastec anthropomorphic representations highlight religious significance, emphasizing that both large-scale public sculptures and small-scale figurines index a widespread fertility cult. Iconographic analysis of figurines combining theories of identity and embodiment underscore how the social, political, and economic identities and affiliations of the Huastec were reflected in the transitions from the Classic to Postclassic periods. Preliminary comparisons of the salient traits of Huastec figurines with other portable arts as well as public media suggest that similar ideals pertaining to identity, social practice, and religion were being communicated synonymously on private household settings as well as in public spaces.

**Favert, Amy (Kentucky Archaeology Survey)**

[251] *Demographic Analysis of Immature Remains from the Old Frankfort Cemetery*

The children of the Old Frankfort Cemetery have provided insight into the overall health of Euro-American and free African American residents of Frankfort, Kentucky. A demographic analysis of 88 individual indicates that the birth rates and juvenile mortality of both the Euro-American and free African-Americans interred in this cemetery are similar to those of free blacks from Franklin County as reported in the census records. In general free African-Americans living in Franklin have lower juvenile mortality than other free southern black populations. This research also reinforces the notion that the Euro-American burial population represents poor to lower middle class families.

**Fayek, Mostafa (University of Manitoba/ORNL), Anovitz, Lawrence (University of Tennessee/ORNL), Riciputi, Lee (ORNL), Cole, David (ORNL) and Elam, Michael (University of Tennessee)**

[44] *A New Understanding of Obsidian Hydration*

Obsidian hydration dating (OHD) is based on the premise that when an obsidian artifact is manufactured the fresh surface exposed immediately begins to hydrate. Unfortunately, surface concentrations may not equilibrate at room temperature for hundreds or thousands of years, and diffusion coefficients are compositionally dependent. "Self-stress," caused by the in-diffusing species, plays an important role. SIMS analysis of H and O, however, clearly suggests that only the hydrogen from water enters the glass at lower temperatures, not oxygen. Applications of new analytical approaches and experimental data to chronology and paleoclimatology have shown the potential applicability of this new approach.

**Fayek, Mostafa [57]** see Hull, Sharon

**Feathers, James (University of Washington)**

[77] *Luminescence Dating of Paleoindian Sites in Brazil*

The Paleoindian record in South America is not as well documented as that in North America, despite the potential of the continent to contribute significantly to the debate over the human colonization of the New World. A large part of the problem is adequate dating. The Luminescence Dating Laboratory at the University of Washington has been involved in a multi-year project to provide luminescence dating at several Paleoindian sites in Brazil, including some that may be pre-Clovis. Our most recent findings are reported.

**Feathers, James [59]** see Jacobs, Zenobia

**Federer, Joseph [6]** see Steiss, Deborah

**Fedick, Scott (University of California, Riverside), Mathews, Jennifer (Trinity University), Glover, Jeffrey (University of California, Riverside) and Sorensen, Kathryn (University of California, Riverside)**

[177] *Regional and Community Investigations in the Yalahau Region, Quintana Roo, Mexico*

Following the example set by Ed Kurjack for Yucatan state, the Yalahau Project has investigated and integrated the varying scales of settlement data. As the Yalahau region of northern Quintana Roo has not received the extensive archaeological coverage as neighboring Yucatan, one of the primary goals of the Yalahau project has been to document settlement patterns across the region. While this extensive regional survey provides important baseline data, the project has also focused on the ancient community of T'isil and the exploitation of the nearby wetland resources. The preliminary results of both regional and community organization studies will be discussed.

**Feibel, Craig [17]** see Goldman, Talia

**Feinman, Gary M. (The Field Museum)**

[206] *Defining and Measuring Stratification: Getting Serious About Multi-dimensionality and Its Requirements for More Systematic Quantitative Data*

A series of articles in the New York Times (2005) points to rapid changes (and their implications) in the nature of economic stratification that have occurred in a highly stratified society over only decades. Archaeologists, who consider a far broader societal and temporal sample, therefore must employ finer categories and implement more multi-dimensional measures than just egalitarian-stratified or a series of neo-evolutionary modes. Although perhaps better known for his significant contributions to archaeological chemistry and domestication, T. Douglas Price has fostered major advances in the ways that we examine inequality and socioeconomic differentiation. These breakthroughs are highlighted and amplified here.

**Fennell, Christopher [5]** see Hargrave, Michael

**Ferguson, Jeffrey (University of Colorado, Boulder) and Skinner, Craig (Northwest Research Obsidian Studies Laboratory)**

[108] *An Examination of a Mesoamerican Prismatic Blade Recovered from Bandelier National Monument*

A prismatic blade recovered from the site of Otowi in Bandelier National Monument in the early 1900's has now been analyzed using EDXRF and the obsidian determined to have originated from the Pachuca source in Mexico. This is only the second confirmed obsidian artifact of Mesoamerican origin recovered in North America, and the first in the Southwest. There has long

been speculation about the connections between groups in the American Southwest and Central Mexico, and this research explores obsidian exchange from Mexico into North America by examining other reported obsidian artifacts recovered from the American Southwest and Southern Plains.

**Ferguson, John [183]** *see Nissengard, Jennifer*

**Ferguson, Josalyn (University at Albany (SUNY))**

[190] *In the Shadow of Colha? The Lithic Assemblage of the Terminal Classic Migrant Community of Strath Bogue, Northern Belize*

Recent analyses of the lithic artifact assemblage from the Strath Bogue site of Northern Belize have revealed interesting patterns in the production, curation and consumption of imported and locally produced materials. These analyses have broader implications for the understanding of the production, consumption and recycling of materials derived from the chert-bearing zone of northern Belize, and potentially of the well known lithic production center of Colha. These data are further significant as they help shed light on the settlement, and economic development and maintenance of this unique Terminal Classic migrant community.

**Feria, Alfredo (Instituto nacional de Antropología e Historia)**

[56] *Un Contexto Clandestino Recuperado en el Centro de la Ciudad de México*

La evidencia arqueológica de la presencia negra en la Ciudad de México, es preocupantemente escasa, sobretodo si consideramos que fue un grupo social que según los archivos tuvo mucha presencia y participación en la formación de la sociedad durante la época virreinal. En el siguiente trabajo presentamos, además de una importante reflexión al gremio arqueológico, evidencias recuperadas dentro de un contexto clandestino en un convento del siglo XVIII, de lo que pudo ser una pequeña parte de la historia olvidada de dicho grupo.

**Fernandez Villanueva, Eugenia (El Colegio de Michoacan A.C.)**

[193] *Tzintzuntzan e Ihuatzio, dos Ciudades Prehispánicas en la Cuenca de Pátzcuaro*

En este trabajo se realiza un análisis comparativo entre las ciudades de Tzintzuntzan e Ihuatzio: su ubicación, tipo de construcciones, circulación interna y hacia el exterior, los tipos de espacios. En las conclusiones se trata de explicar a qué se deben las diferencias entre ambas capitales purépecha.

[65] *Discussant*

**Fernández-Ortega, Racso (Fundación Fernando Ortiz), González Tendero, José B. and Gutiérrez Calvache, Divaldo**

[112] *El Registro Gráfico Rupestre como Expresión de la Mitología Aborígen de Cuba*

En este trabajo analizo las distintas tendencias teóricas en Cuba que han sido la base de los reportes y estudios de los dibujos rupestres realizados hasta el presente. Considerando que el registro grafico rupestre refleja la conducta social de los aborígenes que lo producía, su estudio nos permite acercarnos a sus costumbres y tradiciones, por lo que propongo una nueva hipótesis acerca de la vinculación de determinados personajes mitológicos con el sentido ritual particular de las grafías. Además, considero como los grupos aborígenes mediante el dibujo rupestre perpetuaban los pasajes mitológicos para establecer y controlar la conducta social.

**Ferraro, David (Viejo California Associates)**

[72] *Cultural and Natural Deposits at the Talega Site (CA-ORA-907)*

Human populations have occupied the Talega Site for at least the last twelve and possibly the last eighteen millennia. During this time, 21.5 m of sediment have been deposited on the site as either lithostratigraphic or pedostratigraphic units. The strata contain significant cultural components including a large burnt rock midden, activity areas, and the remains of a stratified pithouse(s) initially occupied 7080-6790 cal. BC. The boreholes produced debitage dating to 14,090-13,340 cal. BC. and potential remains dating to 16,410-15,560 cal. BC.

**Ferraro, Joseph (UCLA), Braun, David (Rutgers University) and Tactikos, Joanne (Rutgers University)**

[197] *Contextualizing Lithic Strategies: A Biological Perspective*

Questions of 'how' are often easier to answer than questions of 'why'. Answers to the latter, though, are generally more valuable- they attest to a greater understanding of the phenomenon in question. Current debates in core reduction studies typically focus on methodological issues. We suggest that different approaches provide equally detailed descriptions of 'how'. None, however, adequately explains why behaviors vary. This paper explores the use of biological

principles coupled with raw material properties to explain variation in lithic strategies. This provides an explicit rational for behavior, and permits competing claims to be evaluated relative to theoretically-based expectations.

**Ferraro, Joseph [17]** *see Braun, David*

**Fertelmes, Craig (Arizona State University)**

[103] *Developing a Standard Protocol for Estimating Vessel Orifices from Prehistoric Southwest Rim Sherds*

Studies (e.g., DeBoer 1980, Plog 1985) have demonstrated there is considerable deviation between analysts in the measurement of rim sherds regardless of the measuring method employed. This deviation is a concern for it greatly impedes resulting archaeological inferences. This study attempted to mitigate the problem by testing the effectiveness of a protocol in reducing measurement error for inter and intra-analyst groups. Furthermore, it investigated resulting data to further modify the protocol to propose a standard recording process for rim sherds that will facilitate collaborative projects.

**Field, David (English Heritage) [30]** *Discussant*; [30] *see Topping, Peter*; [73] *Discussant*

**Field, David (English Heritage) and Topping, Peter (English Heritage)**

[74] *Analytical Survey of the Neolithic Flint Mines in England*

This poster will describe the enormous value of non-destructive analytical field investigation as applied to Neolithic flint mines in southern England. Detailed surface mapping has been extensively used to establish relative chronologies and sequences of activity, while the latest laser scanning methods have been utilised to depict and analyse both earthwork complexes and minute site detail in 3D. Recent fieldwork using laser scanning at the flint mines at Grimes Graves links aspects of surface evidence with the subterranean archaeology and will be presented alongside other site surveys taken from the project archive.

**Figuerero-Torres, María José (Universidad de Buenos Aires)**

[101] *A Measure for Regional Surface Visibility in Patagonia Using a GIS Model*

Archaeological study areas in Patagonia cover vast extensions and most research is regional in focus. In spite of a strong emphasis on reconnaissance and discovery stages, archaeological surface visibility has not been systematically evaluated other than as a post-hoc explanation for regional patterns. We present a GIS model of surface visibility based on selected attributes of geomorphological and vegetation units. This regional map is tested against known archaeological distributions from the Lago Posadas Basin (47°S / 71°S) in South Central Patagonia. This archaeological measure is useful both in survey design and for aiding the interpretation of archaeological patterns.

**Filean, Erik (University of Iowa) and Filseth, Sara (University of Iowa)**

[141] *Age-Based Slaughter and Urban Cattle Provisioning in Roman Nijmegen, The Netherlands: A Quadratic Crown Height Approach*

This poster presents the results of a quadratic crown height method (QCHM) analysis of age-based slaughter of cattle from the Roman-period town of Ulpia Noviomagus (Nijmegen, Netherlands). Patterns of slaughter by age are assessed for both mandibular and maxillary teeth, with an emphasis on patterning or non-patterning in the slaughter of adult to senile cattle. QCHM has most often been applied to questions of age and seasonality of hypsodont ungulates in hunted or scavenged archaeofaunas; with this presentation, we hope to illustrate the largely untapped potential of the method for assemblages dominated by domesticated species.

**Filini, Agapi (El Coleio de Michoacan, Mexico)**

[119] *Agency and Teotihuacan Symbolic Structure: A View from the "Periphery"*

This paper attempts to identify the importance of local agency in the structuration of the Teotihuacan world-system with no implications about power relations between various interactive nodes but rather an issue to be determined empirically. My goal is to highlight key debates and those emerging from a conceptual shift with emphasis on internal dynamics. On a further level of analysis I will explore the active role of agents in structuring the system and how the manipulation of the Teotihuacan symbolic structure was accomplished.

**Filseth, Sara [141]** *see Filean, Erik*

**Finlayson, Bill [133]** *see* Carlson, Eric

**Finney, Bruce [204]** *see* Misarti, Nicole

**Finucane, Brian (Oxford University)**

[152] *Health and Diet in the Huanta Basin, Ayacucho, Perú*

Human skeletal remains excavated from two sites in the Huanta basin, the Middle Horizon site of Marayniyoq and the Late Intermediate-Late Horizon site of Qollana, were analyzed with respect to their physical and chemical characteristics. Diachronic variation health, as indicated by the prevalence of porotic hyperostosis, trauma, trephination, and the demographic profiles of these mortuary populations, is assessed. In addition, long term trends in diet, as recorded in the stable isotope composition of human bone, are considered in order to provide insights into changes in the regional economy.

**Fischbeck, Shelly (University of Texas at Austin) and Hyde, David M. (University of Texas at Austin)**

[120] *Hinterland Settlement in Northwestern Belize: Excavations at the Medicinal Trail Site*

Excavations at the Medicinal Trail Site, an extended household group six kilometers from La Milpa in Northwestern Belize, have focused on ascertaining site function by looking for indicators of socio-economic organization through on- and off-mound excavations. Preliminary findings include numerous water and land management features including terraces and depressions, indicating an agriculturally based economy. Additionally, an elevated social status of the early inhabitants is inferred by the unearthing of a rare Preclassic ceremonial round platform suggesting that the occupants of this group were responsible for a variety of ritual activities in the hinterland.

**Fischer, Manuela [113]** *see* Oyuela-Caycedo, Augusto

**Fish, Paul (University of Arizona) and Fish, Suzanne (University of Arizona)**

[8] *Monumentality and Complex Hunter-Gatherers: Comparative Theoretical Perspectives*

Monumental architecture in the form of shell and earthen mounds is an established component of hunter-gatherer landscapes in North and South America. The relatively widespread presence of such features in archaeologically documented cases extends the range of forager variability well beyond that described in the ethnographic literature, making generalizations regarding economy and organization difficult. We examine changing theoretical and interpretive orientations for shell mounds in coastal Brazil and compare these with other world areas. Brazilian mound-building is considered from perspectives of territoriality, emerging political and social complexity, and symbolic landscapes.

**Fish, Suzanne [8]** *see* Fish, Paul

**Fisher, Christopher (Colorado State University), Elliott, Michelle (Arizona State University), Pollard, Helen (Michigan State University), Nelson, Ben (Arizona State University) and Molina-Garza, Roberto (UNAM, Mexico)**

[216] *A Comparison of Conquest Era Landscape Transformation in the Lake Pátzcuaro Basin, Mexico, and the Malpaso Valley, Mexico*

The Conquest of the Americas is associated with profound environmental transformations that have left palimpsests of past human action, unintended consequences, and natural processes. This paper discusses Proto-historic and Early Colonial era environmental change for two disparate regions of Mesoamerica; Lake Pátzcuaro in the West Central Highlands, and the Malpaso Valley on the Northern Mesoamerican frontier. Though both regions are severely degraded from Conquest-era change, causal mechanisms causing these environmental legacies differ dramatically. We argue that modern conservation plans for these regions cannot succeed in the absence of detailed landscape histories.

**Fisher, Christopher [193]** *see* Leavitt, Alissa

**Fisher, Conrad [97]** *see* Kempton, Karen

**Fisher, Erich (University of Florida)**

[32] *Shaping Up Lithic Technological Change between the Middle and Late Stone Age in the Horn of Africa*

Lithic technological change has traditionally been studied using a typological approach relying on the presence or absence of certain traits within two or more temporally discrete classes. However, by moving away from a typological approach we can begin to observe the continuous and dynamic nature of technological behavior. This paper presents a computer-assisted morphometry analysis of over 3600 flakes from two sites in the Horn of Africa and provides evidence for dynamic technological traditions within and between the Middle and Late Stone Age in this region, fluctuations in technological solidarity, and correlations with changing environmental regimes.

**Fisher, Lynn (University of Illinois-Springfield)**

[125] *Social Contexts of Microlith Production from Magdalenian to Early Mesolithic in Southern Germany*

This paper examines changes in the spatial distribution and social context of microlith production in late Upper Paleolithic and Early Mesolithic southern Germany. Manufacture of microlithic elements is concentrated at seasonal aggregation sites during the Magdalenian, but is more dispersed in the Late Paleolithic and Early Mesolithic. Consistency of bladelet production declines over this time period while regularity of microlith form increases. I explore aspects of skill development and task definition in varying social contexts, and argue that this perspective can contribute to an explanatory framework for understanding changes in blade technology, production techniques, and raw material use.

[199] *Discussant*

**Fisher, Victor (Towson University)**

[27] *Unacknowledged Images: An Object Lesson in Archaeoastronomy*

Since the mid-1970s archaeologists and others have taken sides in the interpretation of four well-known pictographs near the great house Penasco Blanco in Chaco Canyon, New Mexico. To date published accounts have inexplicably overlooked an additional grouping of images just below those so commonly debated. This paper explores possible relationships between the two sets.

**Fitzgerald, Carlos (Universidad de Panamá)**

[231] *Para Mantenerlos a Raya: Escultura Pública en Cacicazgos Panameños del Primer Milenio d.C.*

Se comparan los dos únicos sitios en Panamá que presentan concentraciones de escultura en piedra: Barriles en Chiriquí y El Caño en Coclé. Ambos considerados "lugares centrales" de cacicazgos. Se destaca la naturaleza pública de los contextos, asociados a montículos artificiales y cementerios de alto rango. En Barriles son representaciones más individualizadas: una estrategia de proyección pública de poder enfocada en los rasgos personales de los líderes del cacicazgo. En El Caño las representaciones son más neutras o "genéricas" y el énfasis parece radicar en el grupo corporativo.

**Fitzpatrick, Scott M. (NC State University), Kaye, Quetta (Institute of Archaeology, UCL, UK) and Kappers, Michiel (In-Terris Site Technics, The Netherlands)**

[52] *Compositional and Petrographic Analysis of Ceramics from Carriacou, Southern Grenadines, West Indies*

Instrumental neutron activation analysis (INAA) of ceramic sherds from eight prehistoric sites (ca. AD 400-1500) on the island of Carriacou in the West Indies reveals that there are at least two main compositional groups. This may be a reflection of prehistoric potters selecting clays that derive from either the island's volcanic substrate or limestone substrate. Petrographic analysis of a separate suite of sherds from six of the same sites indicates that there are at least eight temper groups, some of which appear to be indigenous to Barbados and South America or Puerto Rico. A comparison of these findings suggests that interisland exchange systems were active prehistorically and that clay preferences may have also changed through time.

**Fitzpatrick, Scott M. [84]** see Kaye, Quetta

**Flad, Rowan (Harvard University) [15]** *Discussant*

**Fleisher, Jeffrey (Lehigh University)**[169] *The Composition of Swahili Stonetowns*

Second-millennium eastern African Swahili towns are noted for their grand mosques and the residences of prominent residents who consumed and controlled access to imported goods. Exclusive focus on the wealth of material goods—often offered as evidence of competitive accumulation—may underestimate the importance of Guyer's notion of wealth-in-people in the formation of Swahili stonetowns. A key factor in the successful formation and maintenance of stonetowns was the ability to "compose" a synergistic community, with the goal of "accumulating" people not as reservoirs of wealth but as steps toward the completion of a particular pattern of town life.

**Fletcher, Laraine A. [177]** *see Folan, William J.*

**Flexner, James (University of California, Berkeley)**[186] *Walking the Shifting Sands of Identity: An Archaeological Methodology for Kalawao Leprosarium, Moloka'i, Hawai'i*

The concept of identity is important to understanding the lives of the people we study as archaeologists. While using material markers to place people into discretely bounded categories may work well for certain archaeological models, it may not be the best way to describe historical realities. The short occupancy period of Kalawao leprosy settlement (1866-1900), and the nature of identity in the settlement, bounded on an official level but more complex in the lives of the residents, make it a possible test case for the development of a methodology meant to examine the shifting, multivocal nature of historical identity.

**Flores Colin, Alberto Guadalupe (EHAH)**[131] *Causeways, Churches and Miracles: Prehispanic and Colonial Relationships at the Site of Ichmul*

In 2004, CRAS Project registered a network of sacbeob (Maya causeways) that connect Ichmul (Yucatan, Mexico) with peripheral settlements, and which radiate from the central area of the site, precisely where a religious complex of three colonial churches lies. This was where, in 1602, the miraculous image of the Lord of the Blisters (Black Christ patron saint of Merida during colonial times) appeared. The origin of this image could be linked to a Spaniard evangelization strategy that included ancient religious elements. Results of the 2005 season showed the importance of this area, where causeways, churches and miracles join.

**Fluegeman, Richard [145]** *see Rice-Snow, Scott*

**Flynn, A. Skye (Indiana University of Pennsylvania)**[134] *Archaeology Outside the US: How Internships Enhance the Archeological Student Experience*

The classroom cannot prepare a student for the realities of archaeology outside the United States. Internships provide a unique opportunity for students to fully immerse themselves in the archaeology of another country as well as providing students with tools to make better decisions about their futures in archaeology. This presentation illustrates the realities of an archaeological internship in northern Israel – from early morning rising, pick axing and bucket chains in the Beth Shean Valley heat to watching the sun rise over Jordan – and the advantages such internships can provide to undergraduate students.

**Fogel, Aaron [163]** *see Koons, Michele*

**Folan, William J. (Universidad Autonoma de Campeche), Kintz, Ellen R. (State University of New York, Geneseo), Fletcher, Laraine A. (Adelphi University), Anaya H., Armando (Universidad Autonoma de Campeche) and Gonzalez Heredia, Raymundo (Universidad Autonoma de Campeche)**

[177] *Coba, Quintana Roo, Mexico: New Data on a Major Maya Urban Regional Center*

Analysis of the settlement patterns of Classic Maya centers has been a controversial topic for over half a century. The analysis and interpretation of 614 structures and features recorded at the Classic Maya metropolis of Coba between the Xmakaba and Telcox sacbes produces a more complete interpretation of Maya urbanism. This survey verifies the urban nature of Coba based on its large, heterogeneous, tightly packed population, brought down by a severe drought during the 9th century, revealing concentric rings surrounding the central core and housing clusters within the suburban zone.

**Folan, William Joseph [103]** *see Domínguez, María del Rosario*

**Foley, Jennifer [238]** *see Tokovinine, Alexandre*

**Follensbee, Billie J. A. (Missouri State University)**

[147] *The Gift that Keeps on Giving: Formative Period Gulf Coast Ceramic Figurines*

My comparative iconological studies of provenienced, Formative Period Gulf Coast ceramic figurines (2000) revealed a number of gendered physical characteristics, garments, and accessories; studies of figurines from recent Gulf Coast excavations serve to confirm the consistency of these gendered traits. These identifications have proven extremely useful in assessing gender distinctions in the other forms of Olmec sculpture, which are usually sexually ambiguous. My expanded study of the figurines (2005) has helped to identify children in Olmec sculpture. Overall, this fuller understanding of Olmec portrayals sheds considerable light on age and gender roles, social status, and political structure in Olmec society.

**Foradas, James (HRA Gray & Pape, LLC)**

[188] *Nested Landscapes in Changing Landscapes: Examples from CRM Projects in the Central U.S.*

The interrelationship between modern, ancient, and pre-settlement landscapes as it impacts various aspects of Cultural Resource Management (CRM) projects involving sites located along dynamic stream systems in Iowa and Texas is examined. Results from data recovery projects in Iowa, and National Register eligibility evaluations of prehistoric sites in Houston, Texas, illustrate how the understanding of prehistoric and historic landscapes needed to determine eligibility and make other management decisions, is contingent on understanding the relationships between planned futurescapes intended for a given project area; the nested modern, historic, and prehistoric cultural landscapes; and the much older underlying paleolandscapes.

**Ford, Anabel (UC Santa Barbara)**

[238] *Archaeology under the Canopy --A Video*

By local design, a partnership has developed around the vision for the El Pilar Archaeological Reserve for Maya Flora and Fauna celebrating the Maya forest's rich cultural and natural heritage. El Pilar was a major Maya center that was rediscovered on the border of Belize and Guatemala and now is an innovative cross border park that will showcase "Archaeology under the Canopy."

**Ford, Stephanie (University of Waikato)**

[6] *Managing for Māori Cultural Landscapes: A Case Study from the Waikato Region of New Zealand*

This poster explores cultural heritage management in Aotearoa/New Zealand with specific reference to the management of Māori archaeological sites and sites of significance. Issues to be considered include: 1) defining and legislating cultural heritage concepts, 2) assessing the value of cultural heritage, 3) private versus public land ownership, 4) expressing and exercising kaitiakitanga and tino rangatiratanga, 5) determining the quality of local and regional authority plans and policies, 6) measuring cultural heritage outcomes, and 7) successful methods for tangata whenua and local council collaboration.

**Forde, Jamie E. (University of Colorado at Boulder)**

[67] *Mixtec Polychrome Ceramics from Tututepec, Oaxaca, Mexico: New Contexts and Considerations*

Mixtec Polychrome pottery, particularly that loosely dubbed "codex style," has repeatedly been cited in discussions of elite interaction in Late Postclassic Oaxaca. Inferences that these materials were essentially restricted to elites are problematic in that they have relied on little sound contextual data from archaeological excavations. Data are presented here from excavations at two residences from the Postclassic center of Tututepec. Though limited in scope geographically, the contexts and iconographic subjects of ceramic materials considered potentially raise new questions concerning the circulation of ideology and relations between polychromes and other forms of ideological media in the Postclassic Mixteca.

**Forehand, Tammy [5]** *see Moon, Robert*

**Forgey, Kathleen [167]** *see Chan, Keith*



**Forte, Maurizio (CNR-ITABC, Istituto per le Tecnologie Applicate ai Beni Culturali)**[148] *Mindscales and Virtual Ecosystems*

The Virtual Heritage Lab of CNR has conducted several multidisciplinary projects aimed to reconstruct archaeological landscapes using digital technologies in such places as Peru, Syria, Ethiopia, and Italy. The main focus of these projects is to reconstruct spatial relations of the landscape using spatial anthropology and cybernetics, supported by digital immersive technologies. The theory of mindscape shows that virtual reality is a key factor for the reconstruction of ancient mental maps because it involves the way we, as humans, perceive information through time. The process of re-creating virtual and mind landscapes, educates students and scholars on many, varied levels.

**Fortin, Louis [53]** *see Rademaker, Kurt*

**Foss, John E. (Soils International) and Siegel, Peter E. (John Milner Associates)**[176] *Coastal Geomorphology, Archaeological Site Formation, and Settlement Patterns: A Case Study from the East Coast of Puerto Rico*

Coastlines are geomorphically active and sensitive to global and local processes. Sea-level changes, tectonic activity, and climatic events impact coastlines/areas. Humans occupying these places must cope with short and long-term processes/events. Residues of human activities are also subjected to geomorphic processes. It is important to understand these processes for specific contexts when addressing archaeological site formation and reconstructing past settlement systems and coastal paleogeography. We address the geomorphic context of HU-7, a pre-Columbian site located on the east-central coast of Puerto Rico. Geomorphology, sediments/soil development, and catastrophic climatic events are investigated to understand the burial context. Strategies for identifying/recording archaeological sites in coastal settings are discussed.

[84] *see Carlson, Lisabeth*

**Foster, John [52]** *see Conrad, Geoffrey*

**Fournier, Patricia (Instituto Nacional de Antropología e Historia)**[56] *Negritos y Pardos: Alfareros y Vasijas Asociados con la Población Africana en la Capital de la Nueva España*

A pesar de la información histórica sobre la población de origen africano en México, poco se ha estudiado sobre la presencia e impacto de éstos en la vida colonial. Esta ponencia analiza fuentes documentales, como el Códice de los Alfareros de Cuauhtitlan, censos del siglo XVIII y las llamadas pinturas de castas, donde se muestra que este grupo no sólo intervinieron en la manufactura de cerámica sino que, además, su presencia física impactó en el imaginario colectivo, plasmándose en vasijas especiales, en lienzos costumbristas, y en el consumo de determinadas clases de cerámica.

[216] *see Otis Charlton, Cynthia*

**Fowler, Don (University of Nevada, Reno)**[46] *The Antiquities Act in Context, 1879-1979*

The 1906 Antiquities Act was the result of two decades of efforts by archaeologists and archaeological institutions to achieve effective federal legislation to protect cultural resources on public lands. The act was a compromise and had major enforcement problems. The creation of the act in 1906 and its subsequent history prior to the creation of the Archaeological Resources Protection Act in 1979 are reviewed.

[81] *Discussant*

**Fowler, William R. (Vanderbilt University)**[216] *The Conquest-Period Obsidian Industry of Ciudad Vieja, El Salvador*

Ciudad Vieja, the ruins of the first villa of San Salvador, occupied 1528-1545, was inhabited by a large indigenous Mesoamerican population. They continued to use obsidian implements after the Conquest, but a drastic change occurred in the patterns of procurement and manufacture of these implements. No evidence exists that obsidian tools were produced on site. The pattern of evidence presented indicates that prismatic blades were imported ready-made for sale or barter at the town. In less than a generation after the Conquest, a highly specialized skill was lost, and ancient trade and exchange patterns were greatly altered forever.

[216] *Discussant*

**Fowles, Severin (Columbia University)**[27] *The Suppliant's Road: Symbol and Metaphor in Pueblo Prehistory*

As symbols both materialized and imagined, roads are prominent in the religion and cosmology of the historic Pueblo peoples of the American Southwest. Prayers, ritual practitioners, water, spiritual beings, the Sun and Moon—all are known to travel along carefully designated and, often, physically marked roads or pathways. The duly famous Chacoan roads document this aspect of Pueblo ceremonialism in prehistory; however, in this paper I suggest that the pervasiveness of road imagery in the archaeological record more broadly has been underappreciated. Using Eastern Pueblo data, I argue for the importance of road concepts within prehistoric Southwestern communities.

**Fox, Jake (University of Pittsburgh)**[7] *The Persistence of Village-Scale Society on the Southern Altiplano*

Archaeologists have often viewed "Neolithic" societies as representing a stage in the emergence of complex societies. Alternatively, agency-oriented archaeologists have considered early villages the matrix within which individuals and factions compete. Most such studies focus on regions where complex polities emerged, and question how and why they developed. This paper examines a persistent village settlement system of the southern altiplano. Analysis is focused on understanding how and why the development of socio-economic and political inequality was inhibited in this region of the Andes. The Wankarani database is compared with models and trajectories developed elsewhere.

**Fox, William (Canadian Museum of Civilization) and Hamell, George (New York State Museum)**[241] *Rattlesnake Tales*

Few, if any of the other-than-human kinds of people that populate the mythical realities of the North American Indian are held in greater esteem than the rattlesnake, a grandfather, and the proto-typical shaman or warrior. Archaeological evidence from the Northeast and from selected Mississippian sites is presented and combined with ethnographic, historic and linguistic data to investigate the symbolic significance of the rattlesnake to Northeastern Native groups. The authors argue that the rattlesnake is chief and foremost the pre-eminent shaman with the (gourd) medicine rattle welded to his tail.

**Fragementi, Ashley [78]** see Scheiber, Laura L.

**Frame, Sheelagh (Eastern Mediterranean University)**[28] *Cattle in the Early Neolithic of Cyprus*

Until recently it was thought that cattle were not part of the Cypriot Neolithic "Noah's ark." Recent work has demonstrated that cattle were indeed one of the earliest imports to the island, but that they seem to have been exploited for only a short time before being abandoned, until they were reintroduced as an important part of the Bronze Age economy and culture. In this paper I will examine the role of cattle in the Early Neolithic site of Akanthou-Talisu, in order to understand what role cattle played in this society and why that role changed.

**Francis, Joe (Cornell University) and Magri, Antoni (Cornell University)**[148] *GIS and Spatial Statistical Tools for Archaeological Work*

Archaeologists often use a combination of survey and site catchment analysis in planning, conducting, and managing excavations. Recently, archaeologists are seeing the utility of employing a GIS to increase the efficiency and accuracy of their work; a companion set of procedures, spatial statistics, appear to be scarcely employed. Hindering the adoption of GIS/spatial statistics in teaching and field work is the lack of examples illustrating the utility of GIS/spatial statistics compared to traditional methods. This presentation will illustrate the effectiveness of geostatistical analysis procedures (variograms and kriging) and point pattern analysis (spatial clustering) in site selection and future excavation strategies.

**Francis, Julie [209]** see Reher, Charles

**Francis, Peter (Parks Canada Agency), McDonald, Pat, Thomson, Sharon (Parks Canada Agency) and Porter, John (Parks Canada Agency)**[92] *Politics and Planning: A Fur Trade Era Reburial at Rocky Mountain House National Historic Site of Canada*

During the course of construction activities in 1969 within the boundaries of what later became

Rocky Mountain House National Historic Site of Canada, a Fur Trade Era burying ground was discovered. The remains of 14 individuals were removed and stored at the University of Alberta. In September 2002, the human remains, as well as funerary artefacts, were reinterred at a new location at the National Historic Site. This paper discusses aspects of the reburial process including local, Aboriginal and Metis concerns, Parks Canada Agency policies, the various factors that affected the decision making, and how the reburial eventually unfolded.

**Frank-Churchill, Maurice [2]** *see Carroll, Alex K*

**Franzen, John [13]** *see Drake, Eric*

**Fratello, Edward M, (University of Wisconsin-Milwaukee)**

[61] *Modeling Prehistoric Diet and Subsistence at Neolithic Robenhausen: Botanical Remains in Existing Museum Collections*

Robenhausen, a Neolithic wetland site in Switzerland best known for its well-preserved organic remains, was one of the earliest systematic excavations in Europe. Artifacts from this site are in the collections of numerous museums, including the Milwaukee Public Museum in Wisconsin. This study demonstrates the research potential represented by older museum collections. Paleoethnobotanical evidence from the site suggests that early farmers in this part of Switzerland utilized a wide variety of both wild and domesticated foods. Analysis of the roles played by preservation factors, economics, and culture can illuminate the discussion of prehistoric diet in this and other regions.

**Freeman, Andrea (University of Calgary), Hall, Jon (Simon Fraser University), Meyer, David (University of Saskatchewan) and Amundsen, Butch (Stantec Consulting)**

[72] *Late Paleoindian Occupation of the South Saskatchewan River Valley*

Paleoindian movement into western Canada was concurrent with deglaciation of the region. The South Saskatchewan River valley provides an opportunity to examine the settlement of recently deglaciated landscapes. People carrying Plano toolkits settled on glacial lake margins and river terraces during a very active geologic episode. They already possessed intimate knowledge of these newly available landscapes. The further examination of Late Paleoindian settlements of these landscapes provides us with knowledge of how Paleoindians in North America adapted to changing landscape conditions.

**Freeman, Jacob (University of Texas at San Antonio)**

[137] *Where Does Texas Belong? Examining the Relationship between Accumulations of Fire-Cracked Rock and Intensification*

Intensification is a process that has been argued to exist among human groups. Generally, intensification is defined as: increasing the amount of energy extractable per unit area. This research will investigate archaeological features in south and southwest Texas that might be referable to the process of intensification. Specifically, we will investigate the spatial and temporal variability of accumulations of fire-cracked rock, or burned rock middens, using an environmental frame of reference. Previous research relevant to intensification will be discussed, spatial and temporal variability in burned rock midden distributions will be explored, and explanations for such distributions will be considered.

**Friedl, Lukáš [141]** *see Sládek, Vladimír*

**Frink, Douglas (Arizona State University)**

[249] *The History is in the Soil*

An archaeological site does not remain static awaiting discovery as a pristine record of occupation, but undergoes a diverse set of taphonomic changes unique to that specific site. Soil characterization studies integrated with excavation research design can provide valuable insights into many of the processes affecting the archaeological record, and often reveal unanticipated contextual data. This paper presents the results of one such soil characteristic study and the kinds of contextual data contributed to the assessment of one site in the Indian River Hinterland.

**Frink, Lisa (University of Nevada, Las Vegas)**

[206] *Materials and the Transformation of Relationships in Colonial Coastal Western Alaska*

Colonialism transformed cultural orders and redefined identity relationships. This paper examines the interplay of social and economic change and the historically contingent interactions between people and materials. I explore how coastal western Alaskan Eskimo

hunter-gatherer women and men were affected by colonial imports differently. Imported goods entered the exchange system before colonial settlers, and their impact was not innocuous. Imports heightened Yup'ik men's access to status seated in productive acumen, however, new materials and technologies supplanted women's productive skills and contributions, undermining their claims to authority. This paper untangles the mechanisms and meanings of this process using ethnoarchaeological and oral historic data.

**Frink, Lisa [58]** *see Roth, Barbara*

**Frison, George [209]** *see Reher, Charles; [72]* *see Anderson, Derek T.*

**Fritz, Gayle J. (Washington Univ. in St. Louis) [96]** *Discussant; [178]* *see Kelly, Lucretia*

**Froment, Alain [10]** *see Judd, Margaret A.*

**Fruhlinger, Jake (Idaho Army National Guard)**

[97] *Impacts on Archaeological Resources Within Southwestern Idaho*

In 2005 the Idaho Army National Guard (IDARNG) began a cultural resources re-survey of the Orchard Training Area, which consists of approximately 138,000 acres of land. Due to the fact that standards and procedures have changed over the last 20 years, initiating a resurvey of the OTA became a primary goal for IDARNG environmental staff in order to identify and protect resources that may have been overlooked during the original survey. With baseline data collected from annual monitoring, IDARNG staff will reevaluate 31 sites that have previously been determined to be eligible for listing on the National Register in order to ascertain the extent geomorphic impacts have on archaeological resources within southwestern Idaho.

**Fry, Gary F. [244]** *see Delvaux, Thomas R.*

**Fry, Robert (Purdue University) and Aimers, James (Miami University of Ohio)**

[189] *Late Postclassic Ceramics from Chau Hiix and Lamanai*

In this paper we compare the Late Postclassic ceramic assemblages of Chau Hiix and Lamanai. What are the similarities and differences in forms and styles between them, and what does this say about the two sites and their relationship in the Late Postclassic? We also address a number of typological issues such as how to classify vessels when their place of origin and compositional similarities to types elsewhere are unknown. Finally, we make some suggestions about what the ceramics of Chau Hiix and Lamanai suggest about the larger context of the Late Postclassic Maya world.

**Fuentes, Noemí [199]** *see Carrión, José*

**Fuld, Kristen (University of Missouri, Columbia)**

[138] *Changing Morphology of Missouri Projectile Points through Time: A Performance Analysis from the Verkamp Shelter (23PH21)*

The projectile point assemblage of the Verkamp Shelter (23PH21) in Phelps County, Missouri, reflects technological changes ranging from the Middle Archaic to the Late Woodland periods. Because of changes in prey choice and weaponry systems, especially the transition from the atlatl and dart to the bow and arrow, this assemblage provides an excellent opportunity to study the changing morphological attributes through time. I employ a variety of quantitative methods to document these changes. I then tie the results to the previously defined cultural historical types in order to identify the changing performance characteristics of Missouri projectile points through time.

**Fullerton, Ben (University of North Texas), Nagaoka, Lisa (University of North Texas) and Wolverton, Steve (University of North Texas)**

[79] *Taphonomic Analysis of the Twilight Beach Seals: North Island, New Zealand*

A goal of taphonomy is to evaluate the suitability of faunal samples for answering particular research questions. The Twilight Beach seal assemblage is being used in a demographic study relevant to seal conservation. The sample might also be useful for analyzing butchery strategy of prehistoric humans at the site. Although taphonomic analysis of the sample has been done, it is unclear if the assemblage is suitable for the described analyses. Here the prevalence of destructive agents --carnivore damage, butchery, weathering, and other processes that influence skeletal survivorship-- are evaluated to determine if larger-scale research questions can be answered using the fauna.

Fulton, Harold [22] *see* Schneider, Kent

**Funderburg, Ashley (Northern Arizona University)**

[99] *Enriching Our Past: Museums and the Changing Face of Public Education*

Archaeologists hold an important role in public education. Research performed in the field and within institutional settings must reach the scientific community as well as the general population. Museums play an important role in dispersing archaeological knowledge by incorporating a variety of new techniques which make archaeological research accessible to all individuals. I recently interned at the Anasazi Heritage Center in Dolores, Colorado, where computerized simulations, holographic displays, hands-on exhibits, and school programs are currently being used to enhance learning. The Anasazi Heritage Center stands as a model on which other museums can base their educational programs.

**Futato, Eugene (Office of Archaeological Research, University of Alabama Museums)**

[225] *The Alabama Online Cultural Resources Database*

Various state, federal, and private funding enabled the development of the Alabama Online Cultural Resources Database (AOCRD), a cooperative effort between the University of Alabama and Alabama SHPO. This secure, subscription-based website provides a range of services to qualified archaeologists and cultural resource managers. AOCRD consists of two modules; the Alabama State Site File and GIS. Through the database users can submit new site forms, structure ad hoc queries, and access reports of approximately 25,000 site and 11,000 survey records. Recent enhancement to the GIS coverage includes conversion of all site points to polygons.

[127] *Discussant*

**Gabany-Guerrero, Tricia (University of Connecticut)**

[65] *Beyond Belief: The Iconography of Cliff Paintings at La Alberca, Parangaricutiro, Michoacan, Mexico*

Cliff paintings from several identifiable periods were examined through infrared and digital photography methods. Two distinct painting styles were identified which appear to correspond to Archaic and Classic Period iconography. Motifs were cataloged and compared with rock art, murals and codices from Mesoamerica. Results indicate that Mesoamerican iconography is present in a previously undocumented region of highland Michoacan which may be tied to nearby highland settlements.

[65] *see* Ely, Lisa; [65] *see* Hackenberger, Steven; [65] *see* Guerrero-Murillo, Narcizo

Gabe, Caroline [105] *see* Grim, Todd

**Gaboardi, Mabry (Florida State University and NHMFL)**

[143] *Stable Isotopic Record from Fossil Tooth Enamel: A Cold Winter at Zhoukoudian?*

Carbon and oxygen isotopic compositions of herbivore tooth enamel from Zhoukoudian, China are used to reconstruct the paleodiet and paleoenvironment of mammals that occupied the site during the Middle Pleistocene.  $\delta^{13}\text{C}$  values indicate that the proportion of C3 to C4 plants in the diets of some animal increased over time, possibly suggesting more intense winters at this site.  $\delta^{18}\text{O}$  trends are compared to shifts in the East Asian Winter Monsoon (EAWM), as evidenced by the stacked loess record from China. Combined, these isotopes suggest that rapid intensification of the EAWM may have been concurrent with site abandonment by *Homo erectus*.

**Gadsby, David (American University)**

[92] *Community Archaeology as Transformative Action: Building a Reflective and Engaged Public Practice*

Writing in 1970, Paolo Freire (2005:51) defined praxis as "reflection and action upon the world in order to transform it." In recent years, some archaeologists have begun to include the notion of political action into their work. But how can archaeologists' reflection and action be transformative? An ongoing archaeological project in the Hampden neighborhood of Baltimore, Maryland attempts to employ this notion of praxis by acting, through education, on public heritage discourse. By promoting a democratic discourse centering on heritage, the project seeks to increase the power of local community members to affect the course of gentrification in their locality.

**Galaty, Michael (Millsaps College), Tafilica, Zamir (Shkodër Historical Museum), Lefe, Ols (Albanian Institute of Archaeology), Lee, Wayne (University of Louisville) and Watkinson, Charles (American School of Classical Studies at Athens)**

[146] *Highland Northern Albania, "Ecotourism," and the Shala Valley Project: Prospects and Challenges*

The Shala Valley Project (SVP) operates in the remote mountains of far northern Albania and conducted an initial season of regional fieldwork there during the summer of 2005. Combining archaeology, ethnohistory, and ethnography, project members work closely with local people, members of the Shala "tribe," many of whom view cultural- and eco-tourism as means to support economically a way of life increasingly under threat. As a result, local interest in the work of the SVP is high. Our main concern is whether and how we might contribute to "sustainable" development of cultural resources in Shala.

**Galaty, Michael [204]** see Lee, Wayne

**Gale, Sara (University of Denver)**

[106] *The Use of Ground-penetrating Radar for Site Reconstruction at San Lazaro Pueblo, in the Galisteo Basin of New Mexico*

San Lazaro Pueblo, south of Santa Fe, New Mexico, was occupied from about AD 1275-1540. The area appears to have experienced population increase during the 14th century from immigration. One plaza was chosen for geophysical and archaeological study because previous research suggested it may have been occupied throughout. Ground-penetrating radar mapping and standard excavations illustrate the original plaza surface, features within it, and extent of roomblocks. Results show migration resulted in higher than anticipated population density with several periods of structure renovation, indicating possible integration of diverse cultural groups from outside the basin.

**Galea, Patrik [141]** see Sládek, Vladimír; [223] see Sosna, Daniel

**Gallaga, Emiliano (University of Arizona)**

[140] *New Archaeological Research in the Middle Yaqui River, Sonora, Mexico*

Despite the impressive amount of archaeological research conducted in Sonora in the last decades, some areas are still unknown. The Middle Yaqui River region is one of them. Traditionally, this region has been identified as part of the Rio Sonora archaeological tradition. However, no archaeological research verifies this. This poster presents new data from the Onavas Valley Archaeological Project (OVAP), conducted in the Middle Yaqui River Valley, which provided basic data to solidify our understanding of an archaeologically poorly researched area, examine its role in interactions with the neighboring archaeological areas, and increase our knowledge of southern Sonora archaeological traditions.

[56] see Newell, Gillian

**Gallareta Negron, Tomas [207]** see May Ciau, Rossana; [49] see Ringle, William

**Gallareta Negrón, Tomás (INAH-Yucatan, Mexico) and Bey, George (Millsaps College)**

[177] *Palaces, Kitchens, and Society in the Eastern Bolonchen District, Puuc Region, Yucatan, Mexico*

In this paper we present results of work we have recently conducted at Kiuic and Labna, Yucatan, during which we examined spaces internal and external to "palace" groups. As Kurjack has suggested, the density of sherds and grinding tools permit identification of food preparation areas. Comparison of the location, form, size, and number of putative kitchens in some of the most important elite structures suggests that cooking facilities in palaces were centralized, while elite family residences apart from palaces each had their own kitchen facilities.

**Galle, Jillian (Monticello / DAACS)**

[195] *Enslaved Consumers and Costly Signals in the 18th-Century Chesapeake*

Signaling theory offers archaeologists a compelling paradigm for understanding the mechanisms that drove conspicuous consumption in complex societies, and how portable costly goods were effective means of communication in the socially and economically competitive 18th-century Atlantic world. Using data from slave-quarter sites in the Chesapeake, I explore the ways in which enslaved Africans consumed and displayed portable artifacts, such as expensive buckles and fashionable buttons, as costly signals. The analysis suggests how time, proximity to urban

centers, and household composition, including the age and gender of quarter residents, impacted consumption levels and signal intensity.

**Gallison, James [198]** *see Ramirez, Nicole*; **[72]** *see Kilby, David*

**Gallison, Jim (engineering-environmental Management, Inc), Herrera, Roberto (University of New Mexico/e2M), Church, Michael (University of New Mexico/e2M), Ramirez, Nicole (Engineering-Environmental Management, Inc.) and Renner, Valerie (Kirtland Air Force Base)**

**[198]** *The Archaeology of the Western Manzanita Mountains, New Mexico*

An ecological perspective on archaeological site distribution can have important implications for environmental and resource management. This paper presents the results of a 20,000-acre survey of the Manzanita Mountains on Kirtland Air Force Base, New Mexico, an area with a 10,000-year cultural sequence. The survey results shed light on a substantial and previously unrecognized Developmental-Coalition Period occupation of Coyote Canyon, a major tributary drainage of the Rio Grande. This paper uses the approximately 250 prehistoric sites in the survey area to produce a model of the relationship between key environmental parameters and the density and distribution of archaeological sites.

**Gallivan, Martin (College of William & Mary)**

**[245]** *"Where their great king inhabited": Comparing Plowed and Unplowed Horizons within the Powhatan Political Center at Werowocomoco*

Excavations at the Werowocomoco site in Tidewater Virginia have identified dispersed village occupations dating from AD 1250 through the early seventeenth-century when the location served as the Powhatan political center and the residence of the paramount chief. Similar to other Native sites in the region, Werowocomoco's Contact period component consists largely of small postmold features and mixed plowzone deposits. Unlike most other sites, Werowocomoco also contains intact buried horizons dating to the terminal Late Woodland period. Comparison of these buried horizons and plowzone deposits has refined our understanding of the site's chronology, demography, and spatial organization.

**[243]** *see Duncan, Joshua*

**Galm, Jerry (Eastern Washington University) and Keene, Joshua (Texas A & M University)**

**[44]** *An Archaeological Perspective on the Genesis of "Mima" Mounds in Eastern Washington*

Recent archaeological investigations in eastern Washington have shed new light on the genesis of small mounds common to the interior Pacific Northwest. Various models have been proposed to explain the origin of "mima" mounds, most identifying causation in the form of a single geologic process that begins in the terminal Pleistocene. Archaeological evidence provides an alternative interpretation of mima mound formation. Data derived from multiple archaeological contexts confirm a late Holocene age for some mounds. Intervals of eolian sediment deposition documented in these mounds are linked to cycles of climatic variability within the last 2500 years of regional prehistory.

**Galvao-Sobrinho, Carlos (University of Wisconsin-Milwaukee)**

**[188]** *Power, Memory, and the Cityscape of Rome in the Principate*

Drawing on examples from the early Principate, this paper focuses on how the imperial cityscape of Rome functioned to shape the social and political behavior of its residents by generating new subjectivities. Instead of asking how power produced concrete urban space or how architecture communicated policy, it examines how imperial interventions in the urban space reorganized collective memory and altered the cognitive experience of the urban environment. In the context of imperial domination in the Principate, this acquired particular significance as Roman citizens sought to negotiate new political identities (e.g., citizen vs. imperial subject) and define proper political postures.

**Gang, G-Young [150]** *see Dickson, D. Bruce*

**Gann, Douglas (Center for Desert Archaeology)**

**[101]** *Archaeological Applications of Three-Dimensional Virtual Heritage Modeling*

Archaeological research on the Spanish and Mexican Period occupations of the Tucson Basin recently utilized an array of three-dimensional modeling tools and techniques. These methods were used for the recovery of metric data from historic photographs, public interpretation, and the planning of urban parks (including the generation of designs for reconstruction of historic features). This research demonstrated that including three-dimensional digital modeling

techniques in archaeological research provides benefits not limited to applications for public interpretation. By the creation of a "visual hypothesis," the organization and visualization of spatial data yielded testable theories of no longer extant architectural spaces.

**Gann, Douglas [6]** *see Devitt, Mathew; [93]* *see Gavioli, Lisa*

**Garber, James (Texas State University), Awe, Jaime (Belize Institute of Archaeology), Cochran, Jennifer (University of Texas-Arlington) and Kersey, Kimberly (Texas State University)**

[174] *The Terminal Early Formative and Middle Formative Occupations at Cahal Pech: Results of the 2004 and 2005 Excavations*

Excavations at the site of Cahal Pech, Belize have revealed a complex sequence of building episodes and ritual deposits initiated at the end of the Early Formative (1100 BC) continuing for several centuries. These investigations revealed information on the architectural configurations and ritual behavior associated with the buildings. The presence of exotics in these early deposits indicate the participation in a long distance trade network and the emergence of social stratification. This paper examines these patterns, compares them with other examples, and provides a foundation for the understanding of the emergence of social complexity in the Maya Lowlands.

**Garcia, David and Demarest, Arthur**

[134] *Tombs, Treasures, and Ethics: Post Colonial Approaches to Archaeology and Tourism in the 21st Century*

Archaeologists have largely ignored the destructive impact of their projects as "unplanned development." Traditional archaeology creates large-scale employment for several years followed by sudden departure and unemployment. Locals who formed the labor force for archaeological excavations are usually excluded from subsequent phases of restoration, park creation, and tourism. Disillusionment and exclusion of locals leads to looting and ecological disaster. Alternative approaches to socially ethical archaeology are presented here. These are based on culturally-sensitive community engagement to research design and simultaneous archaeology, restoration, park development, and tourism training.

**Garcia, Kristina (Dartmouth College) and Covey, R. Alan (Southern Methodist University)**

[4] *Regional Settlement Continuity as a Measure of Imperial Transformation in the Cusco Region (ca. AD 1000-1600)*

From around AD 1000-1600, two waves of imperial expansion transformed the Cusco region of highland Peru. The first involved internal developments as previously autonomous political and ethnic groups were incorporated into the Inka state and the region was promoted as the Inka imperial heartland. Following the European invasion of 1533, this imperial core region was altered substantially as it was converted into a provincial region under Spanish imperial administration. Using regional survey data, we consider pre-Inka, Inka, and Colonial settlement stability as an indicator of the local effects of imperial administration.

**García, Cristina (Centro INAH Sonora)**

[224] *The San Dieguito Complex at La Playa, Sonora*

The finding of more than 1,000 lithic artifacts, as flakes, unifacial tools, choppers, hammers and core tools showing different degrees of superficial alteration, on a late Pleistocene fluvial channel and its subsequent analysis, had as result that it is an occupation of San Dieguito II groups. This geographical location, northwest of Sonora state, modify the south boundary established by Malcolm Rogers around the 90's of the XX century, suggesting the great territorial extension that this cultural complex had.

**García, Oreto (Universitat de València) and Molí, Lluís (Universitat de València)**

[199] *Mesolítico y Neolítico en la Costa Mediterránea de la Península Ibérica: Dinámica Territorial y Estrategias Socioeconómicas*

Con la llegada del Holoceno se acentúa una progresiva mejoría climática que tiene su correlato en las transformaciones de la cobertura vegetal y por consiguiente de los ecosistemas asociados. El devenir de los últimos caza-recolectores, y el impacto de la introducción de las nuevas estrategias económicas, constituyen uno de los ejes centrales a evaluar en este trabajo. Con el neolítico, entendido en el área que nos ocupa como una introducción foránea se inaugura un período en el que las sociedades productoras adquieren el protagonismo principal en la extensión de un nuevo patrón de poblamiento y explotación del territorio.

**Garcia, Oreto [199]** *see Miller, Alexandra*



**García Moll, Roberto (Instituto Nacional de Antropología e Historia) and Salas, Marcela (Instituto Nacional de Antropología e Historia)**

[86] *Tlatilco: Un Enfoque*

En Tlatilco se han recuperado a lo largo de varias décadas cerca de 450 enterramientos humanos y más de 5000 objetos de diversos materiales, durante estos trabajos se han extraído varias toneladas de material arqueológico, el conjunto de la información nunca ha sido asociada a su contexto arqueológico. Es precisamente de los materiales fuera del conjunto funerario donde se ha localizado la mayor parte de objetos y fragmentos asociados a la cultura olmeca, información que de no analizarse e integrarse al conjunto en su real interpretación seguirá causando errores en la interpretación.

**García-Des Lauriers, Claudia (University of California, Riverside)**

[190] *Interregional Interaction on the Chiapas Coast during the Classic Period: A View from Los Horcones*

Ongoing research at the site of Los Horcones has revealed a complex picture of interregional interaction between the Chiapas Coast and Teotihuacan during the Classic Period. This paper is an update on excavations and mapping, as well as an evaluation of what the material correlates for interaction are at Los Horcones. This evidence will then be compared with evidence of Teotihuacan interaction in other regions.

**García-Goyco, Osvaldo (Centro de Estudios Avanzados de Puerto Rico y el Caribe; Universidad de Puerto Rico)**

[70] *Iconografía y Simbolismo en los Rituales de Redistribución de las Jefaturas Tainas*

Se analizará la evidencia etnohistórica y arqueológica sobre los rituales donde los caciques tainos de las Antillas Mayores redistribuían la producción de alimentos. Se postula que estos rituales estaban asociados a la ubicación de una plaza ceremonial dentro de un contexto mítico geográfico que incluía la silueta de las montañas circundantes y los movimientos celestes.

**García-Herbst, Arleen (University of California at Santa Barbara) [154] Discussant**

**García-Herbst, Arleen (University of California at Santa Barbara) and Lanata, Jose Luis (Universidad de Buenos Aires)**

[226] *Explaining Ancient Technological Innovation in Coastal Southern Argentina (Santa Cruz Province)*

This paper aims to explain changes in flaked stone technology during the Mid-Late Holocene (6500 BP to AD 1850) by examining the prehistoric social organization of coastal hunter-gatherers in Southern Argentina. It presents a case study evaluating a recently published model of technological evolution – Ben Fitzhugh's 2001 risk sensitivity model of technological innovation. It tests the idea that technological innovation is particularly manifest during times of hardship (colonization, circumscription, intensification, and the emergence of social inequality). The flaked stone assemblages from 17 archaeological sites were examined using a series of flaked stone analyses to monitor technological innovations.

**Gardner, Dudley [160] see Elliott, Gabrielle**

**Gardner, Sam [138] see Wernecke, D. Clark**

**Garduno-Monroy, Victor [193] see Leavitt, Alissa**

**Garic, Natasa (Northern Arizona University)**

[99] *Footprints of the Ancestors: Hopi Perspectives on Images in Stone*

A collaborative project between Hopi elders, cultural specialists, teachers, and anthropologists, attempts to bring Hopi traditional knowledge into the classrooms on the Hopi Reservation, by building community based cultural curriculum and educational resource CD-ROM. Petroglyphs and pictographs are an important part of that curriculum, because they draw a picture of the past to the present and future generations. Looking at this subject from a native, historical, ethnographic, and archaeological perspective, the presentation sheds light on the importance of images in stone for Hopi people today and demonstrates how to apply that information to the curriculum and resource CD-ROM.

**Garraty, Christopher (Arizona State University)**

[233] *The Politics of Commerce: Marketplace Exchange and Imperial Competition in the Core of the Aztec Empire*

One important way that empires consolidate power is to undercut the traditional revenue bases of subject elites and redirect resource flows into the imperial coffers. To this end, Aztec imperial rulers implemented a strategy to divert and appropriate marketplace revenues from subject elites throughout the Basin of Mexico. New and recent compositional studies of Aztec ceramics suggest that Mexica rulers in Tenochtitlan managed to penetrate the market domains of neighboring polities in the Basin, including their allies in Texcoco. Tenochtitlan's emergence as the more powerful of the two centers may be in part due the apparent success of this strategy.

**Garrison, Ervan (University of Georgia), Reppert, Phillip (ARA, Inc.) and Schneider, Kent (USDA-Forest Service)**

[22] *Geoprospection of Mound A, Etowah Mounds State Park, Georgia, 2001-2002*  
Mound A, located at Etowah Mounds State Park, Georgia, was the subject of a multi-sensor geoprospection study in 2001-02. Mound A, a late prehistoric mound, built by the Mississippian Culture, ca. 1250-1400 AD, is, due to its size, ~1 ha in area at the base and 20m in height, a formidable subject for the use of shallow geoprospection techniques. Techniques used were ground radar (GPR), conductivity (EM) and electrical (resistivity) methods. Common Mid-Point (CMP) radar data produced detail on the mound interior from surface to base. Electrical pseudo-sections produced excellent detail of the mound's interior. The EM data appears relevant for only the upper half of the mound, perhaps to a depth of 10 m, and suggests significant heterogeneity in the sediment fill used in the mound's construction. Our results speak directly to the efficacy of shallow geophysical techniques in exploring large archeological mounds and tells. Another important aspect of this study is the use of a geoprospection approach as a non-invasive methodology for characterizing culturally sensitive archaeological sites.

**Garrison, Ervan [22]** see Goodman, Dean; [22] see Jones, Stephen

**Garrison, Thomas G. (Harvard University)**

[48] *Defining Intersite Areas in the Northeast Peten, Guatemala*

The nature of the vegetation and terrain in the Peten has limited ways in which intersite investigations have been carried out. New technologies are changing the ways in which survey are conducted in the tropical forest environment. This permits a redefinition of intersite areas as we can now more closely approximate how these areas were delineated and functioned over space and through time. Using the Xultun-San Bartolo intersite area as an example this paper defines intersite areas based on topography and resource distribution and outlines a sampling strategy for both survey and excavation programs based on this new definition.

**Garrow, Patrick H.**

[176] *La Iglesia de Maraguez: A Local Ceremonial Center in the Cerrillos River Valley, Puerto Rico*

Archaeological data recovery was undertaken for the Jacksonville Corps of Engineers at La Iglesia de Maraguez (PO-39) site from 1989 to 1991. Testing and data recovery revealed a relatively small site with a major component that dated to the 11th century AD. The site included a small batey with petroglyphs, a midden on the slope below the batey, and a single structure on a ridge nose to the south of the midden. This site was interpreted to be a nonresidential, local ceremonial center that served a portion of the upper Cerrillos River Valley.

**Garvey, Jillian [239]** see Pike-Tay, Anne

**Garvie-Lok, Sandra (University of Alberta)**

[10] *Diet, Mobility and Empire in Ottoman Greece*

While historical documents provide some information on daily life in Ottoman Greece, many details of this life and of the impact of imperial policies on average individuals remain unknown. Stable carbon, nitrogen and oxygen isotope analyses of human bones and teeth from the Ottoman cemeteries of Corinth and Mitilini offer us new insights into these issues. The results suggest significant maize consumption by some individuals, possibly reflecting Ottoman encouragement of maize cultivation. They also suggest movement of individuals from place to place in the Empire, which would have been consistent with Ottoman policies on the relocation of individuals and populations.

**Garza, Sergio (University of California, Riverside)**[64] *Gender Complementarity and Separation in Maya Ritual*

An ethnoarchaeological study of a Kanjobal Maya speaking community suggests that gender relationships surrounding indigenous ritual, especially cave ritual, is far more complex than suggested in previous literature. While women were prohibited from entering caves, unmarried men were also denied entrance. At the same time long periods of sexual abstinence are required of men before cave rituals. Much of community ritual is controlled by male *alcalde rezadores*. The most important named position in the hierarchy, however, is held by a woman and this is reflected by the preeminence of Mother Earth (*Madre Tierra*) in the indigenous pantheon.

**Gasco, Janine (CSU-Dominguez Hills), Neff, Hector (CSU-Long Beach) and Evins, Gloria (CSU-Dominguez Hills)**[9] *Postclassic Ceramics in the Soconusco: Patterns of Production and Exchange*

The Soconusco region played an important role in long-distance exchange systems during the Postclassic period as merchants brought goods produced elsewhere to the Soconusco to exchange for the region's cacao. Imported goods such as copper, bronze, and obsidian have been recovered during excavations at Postclassic sites in the Soconusco, and stylistic analysis of ceramics indicates that Soconusco residents used ceramic vessels that are similar to bichrome and polychrome ceramics found in other regions of Mesoamerica. To better understand patterns of ceramic production and exchange, in this study we analyze Postclassic Soconusco ceramics through laser ablation ICPMS to identify production centers.

**Gaspar, Maria Dulce (University of Rio de Janeiro) and DeBlasis, Paulo (University of Sao Paulo)**[113] *Sambaquis as Sacred Monuments: Ritual Moundbuilding at the Southern Coast of Brazil*

Sambaquis (shellmounds) appear all along Brazilian Atlantic coast, getting monumental magnitude towards the southern shores. No longer considered campsite remains from small nomadic bands of shellfish collectors, these impressive mounds are taken today as expression of dense sedentary societies. Recent investigations reveal recurrent ritual funerary procedures, involving preparing, disposing and revisiting the ancestors, at the basis of incremental building up of the mound, where food offerings and feasting are paramount features pointing to a great social investment. Recurrence of ceremonial patterns over time (at least 6000 to 1700 BP) points to long lived religious patterns among "complex" fishing-collecting societies.

Gatenbee, Chandler [251] *see Tillquist, Christopher***Gatsov, Ivan (New Bulgarian University)**[30] *Raw Material Procurement and the Systems of Supply during the VII-V Mill BC in Bulgaria and NW Turkey*

This paper discusses research conducted on stone quarries and raw material procurement and supply systems in Upper and Eastern Thrace and the South Marmara region, as well during VII-V millennia BC. The main features of the subsistence strategy in Early Farming Societies in these territories are also presented. Special attention has been devoted to geochemical and petrographic discrimination of raw material varieties and their corresponding groups of stone artifacts. The paper also discusses the reduction sequence in frameworks of prehistoric stone technology. The important characteristics of stone artefact production and raw material exchange are examined.

[73] *Discussant*Gauld, Suellen [132] *see Oliver, J.S.*; [215] *see Kansa, Sarah*Gauthier, Rory [183] *see Nissengard, Jennifer***Gavioli, Lisa (University of Arizona) and Gann, Douglas (Center for Desert Archaeology)**[93] *Adobe Brick Architecture in the Homol'ovi Settlement Cluster*

This paper synthesizes evidence of adobe brick architecture among several sites in the Homol'ovi Settlement Cluster of northeastern Arizona. The results of morphological and compositional analyses of adobe bricks from Chevelon Ruin are compared with existing data from Homol'ovi I, Adobe Pueblo, and Homol'ovi III in order to show that residents of these ancestral Hopi pueblos had a sophisticated understanding of adobe technology and were manufacturing form-molded adobe bricks 250 years prior to Spanish contact. Evidence of

adobe brick use at Homol'ovi is also situated within a larger regional context of prehistoric adobe brick architecture in the U.S. Southwest.

**Gavioli, Lisa [93]** *see Cutright-Smith, Elisabeth*

**Gazzola, Julie [236]** *see Spence, Michael*

**Geary, Jean [239]** *see Gifford-Gonzalez, Diane*

**Geib, Phil (Navajo Nation) and Robins, Michael (Navajo Nation)**

[106] *Analysis and AMS Dating of the Great Gallery Tool and Food Bag*

In 2005 a leather bag was recovered from the Great Gallery in Horseshoe Canyon, Utah, a famous rock art site within Canyonlands National Park. The bag was bound in the middle by a leather strap creating two sections. Marshelder seed filled the bottom part, with the upper part containing three small leather pouches, one of which held 41 chipped stone flakes and an antler pressure flaker. We provide a detailed analysis and description of this cache including AMS dating and then interpret the find within the context of Utah prehistory and the role of caches in general for mobile populations.

**Geller, Pamela L. (American University), Bell, Ellen E. (Kenyon College) and Canuto, Marcello A. (Yale University)**

[210] *From the Edge of the Copan Kingdom: Recent Research in the El Paraiso Valley*

Strategically located on the edge of the Copan kingdom, settlements in the El Paraiso Valley, Department of Copan, Honduras, acted as nodes through which the authority of the Classic period ruling dynasty of Copan was brokered. The settlement patterns, material culture, and location of the two principal Late Classic (AD 600-900) centers, El Paraiso and El Cafetal, suggest varied affiliations with Copan elites, while a Late Formative (400 BC-AD 250) complex, Las Orquideas, indicates the time-depth of this interaction. This paper draws on recent research to explore the development, integration, and disintegration of the Classic Maya kingdom centered at Copan.

**Geller, Pamela L. [159]** *see Canuto, Marcello A.*

**Gencer, Yasemin [78]** *see Scheiber, Laura L.*

**Gendron, Daniel [74]** *see Desrosiers, Pierre M.*

**George, Diane (CUNY Graduate Center)**

[151] *The Decolonization of Ulster: Narrative and Archaeology at the Ulster American Folk Park*

The past constructed at the Ulster American Folk Park in Northern Ireland is that of a decolonized and uncontested Ulster, a narrative that denies the complex and dynamic nature of inter-group relations in Northern Ireland and the role of empire in creating the present conflict. This paper analyzes the use of material culture in constructing narratives at the Park and the role that this sanitized heritage plays in the production of the present.

**Gerace, Donald (Gerace Research Centre)**

[244] *Eulogy on Dr. Charles Hoffman*

Dr. Charles Hoffman, who passed away on July 1, 2005, is known for his work in both prehistoric and historic archaeology in the US Southwest and the Bahamas. He will be recognized for his dedication to the historic preservation in his home town of Flagstaff, Arizona, and his definitive work on Lucayan Indian ceramics and his study of an early Spanish contact site on San Salvador Island, Bahamas.

**Gerace, Kathy (Gerace Research Centre)**

[244] *A Reexamination of Three Loyalist Plantation Sites, San Salvador Island, Bahamas*

Although excavated nearly thirty years ago, the archaeological remains from three Loyalist plantations on San Salvador Island, Bahamas, have not been fully analyzed. A reexamination of the artifact remains and field notes will be undertaken in light of new theories and hypotheses in Bahamian historic archaeology developed from work on several similar plantation sites in the Bahamas. Emphasis will be placed on variations in architecture as well as distributions and interpretations placed on ceramic and other artifactual remains as they relate to the plantation owners and slave populations.

**Gero, Joan M. (American University)**[60] *Agency for One and All: The Development of Complexity at Yutopian, Argentina*

Newly run C14 dates at the Formative site of Yutopian, northwest Argentina, suggest that the appearance of ceremonial aspects of the site occurred late in the Formative sequence rather than in the period of its earliest settlement. Examining this finding closely, my paper proposes various scenarios in which agency and structuration can be posited to underpin the chronological development at Yutopian, each having explanatory power and each being completely in synch with the rest of the Yutopian data. I use these alternative scenarios to question the overall robustness of concepts like "agency".

**Geurds, Alexander (Leiden University), Van Broekhoven, Laura N K (Leiden University) and Salminen, Mikko (Leiden University)**[139] *Conducting Landscape Survey at Santiago Apoala, Oaxaca, Mexico*

During 2002, surface remains were recorded at Santiago Apoala. Located in the Mixtec region of Oaxaca, Apoala is primarily known from Postclassic pictorial manuscripts where it features as place of origin for Nuu Dzaui (Mixtec) culture. Until recently, its archaeological record was largely unknown, and thus the relationship of archaeology and iconographic references remained untested. In order to clarify these relationships, two research goals were proposed: 1) create a detailed archaeological inventory for Apoala, and 2) investigate the current-day oral history. The research in the field was executed by means of collaborative archaeology, involving local inhabitants in all aspects of the project.

**Ghezzi, Ivan [219] see Makowski, Krzysztof****Gibb, James (Independent Scholar)**[247] *Stalking Early Colonial Tidewater Sites: Elusive Low-Density Sites in the Chesapeake Region*

Three early Colonial sites in Maryland's Tidewater revealed themselves through low artifact densities, one by only four artifacts from more than 40 shovel tests at 25-ft to 50-ft intervals. This paper relates the results of shovel-testing and surface-collecting to the subsurface features exposed by machine-grading. Idlewild Farm (18AN1257), Garrett's Chance #3 (18PR703), and the Roberts (18CV350) sites demonstrate the importance of recognizing and examining low-density early Colonial sites, sites that may be identified on the basis of a single artifact.

**Giblin, Julia (Ohio State University)**[153] *Mortuary Analysis of the Early Copper Age Settlement at Körösladány-Bikeri*

Initial excavations at Körösladány-Bikeri, an Early Copper Age site on the Great Hungarian Plain, recovered the remains of three child skeletons. This paper presents the mortuary analysis of the human skeletal material excavated during the 2005 field season. It compares these individuals to child burials recovered from similar Early Copper Age sites in the surrounding region and discusses the possible significance of differential treatment of children in the burial environment.

**Giegengack, Robert [71] see Smith, Jennifer****Giesso, Martin (Northeastern Illinois University)**[149] *Khonko Wankane and Tiwanaku: Changes in Urban Life in the Southern Titicaca Basin*

Examining the circulation of goods improves interpretations of the complexities of urban life. Comparing two closely related sites: Late Formative Khonko Wankane (AD 200-500) and the city of Tiwanaku (AD 500-800), we examine changes in the material provisioning of both urban and rural society in the Titicaca basin. Did people have access to similar goods pre-and post-AD 500? What changes took place and how can we account for them? Was physical distance related to social distance? In Tiwanaku, different walled barrios obtained lithic raw materials from different sources. These materials were also procured earlier, but what changed?

[219] *see Laguens, Andres***Gifford, Chad (Columbia University) and Connell, Samuel (JPAC-CIL and UCLA )**[60] *Forts and More Forts: Resisting the Inka in Ecuador*

Understanding the role history and agency play within broader social structures is central to any investigation of culture contact under imperial expansion. This paper focuses on the social dynamics that swirled around encounters between indigenous societies and the Inka Empire in Northern Ecuador. Spanish historians name Ecuadorian leaders who resisted with their

followers Inka military advances for 17 years at Pambamarca. We analyze the architecture of some 20 fortresses concentrated in Pambamarca in an attempt to assemble the Ecuadorian actor within both the traditional precedent of life in Northern Ecuador and the cultural structures introduced by the Inka.

**Gifford, Chad [69]** *see Lewis, Brandon*

**Gifford-Gonzalez, Diane (UC Santa Cruz), Cooper, Charlotte (UC Santa Cruz), Geary, Jean (San Jose State University), Newsome, Seth (UC Santa Cruz) and Peabody, Joshua (USDA Forest Service)**

[239] *Zooarchaeology of the Moss Landing Hill Site (CA-MNT-234): Implications of 8000 Years' Faunal Exploitation on Monterey Bay*

We report on vertebrate fauna from the Moss Landing Hill Site, including hitherto unanalyzed Early-Late Period mammal and bird samples. Northern fur seal dominate the mammal assemblage, with a rise in canids during final occupation, and unweaned seals predominate. Subadult and adult male fur seal remains are the first found in mainland California; bone isotopes reflect year-round middle latitude foraging. Avian taxa include overwintering species. The site probably was an extraction site during Early-Middle Period. Findings are related to Milling Stone and Early hunting patterns, to contemporaneous regional sites, and debates about fur seal procurement.

**Gilead, Isaac (Ben-Gurion University, Israel)**

[226] *The Ghassulian Sickle Blades Workshop of Beit Eshel: Aspects of Hierarchical and Heterarchical Interpretations*

Craft specialization of the Ghassulian culture is a major key for a better understanding of the social and economic organization of the Chalcolithic communities. It is difficult to know whether flint tools were produced by craft specialists. Raw flint is easily available and products are found in every household, thus, tracing possible specialized production is complicated. The paper explores issues of specialized production on the basis of the recently unearthed Ghassulian flint sickle blades workshop of Beit Eshel in Beer Sheva. Aspects of hierarchical vs. heterarchical interoperations will be discussed in the framework of Chalcolithic craft specialization and social organization.

**Giles, Bretton (Binghamton University) and Cobb, Charles (Binghamton University)**

[54] *Masking Memories among the Scioto Hopewell*

The Adena and Scioto Hopewell symbolic repertoire overlaps in a realm of fuzzy boundaries comprised of memories, legends, myths, and traditions. We navigate through multiple Adena and Scioto Hopewell material media to explore how the past was simultaneously evoked and spaces for innovation produced. In particular, we focus on transformations in the production, use, and deposition of ceremonial regalia and/or masked apparel that were likely used in ephemeral performances. We also address ways in which these fleeting displays were inscribed and stabilized in other forms of material culture such as effigies or statues.

**Giles, Bretton [141]** *see Alfonso, Marta*

**Giliberti, Joseph [213]** *see Kluth, David*

**Gillam, J. Christopher (University of South Carolina)**

[66] *A Geographic Perspective on the SC Paleo-Point Database*

Over four decades of data collection on Paleoindian bifaces from South Carolina have been updated, re-analyzed, and georeferenced to improve the quality and research potential of the database. Improved typology, georeferencing for geographic information system (GIS) analyses, and electronic distribution to colleagues were the primary goals of this recent effort. To date, nearly 500 Paleoindian bifaces (n= 466) have been recorded in South Carolina, consisting primarily of Clovis, Redstone, and occasionally Simpson and Suwanee points. Geographic analyses provide a clearer understanding of Paleoindian settlement and sample bias in the region.

[66] *see Anderson, David*

**Gillespie, Susan (University of Florida)**

[111] *Embodied Persons and Heroic Kings in Late Classic Maya Sculpture*

Late Classic Maya sculpture emphasized the corporeality of the body, especially of kings. The

stress on the natural appearance of kings' bodies has been interpreted, paradoxically, as indicating their divinity. I suggest this innovation in visual representation reveals clues to notions of embodied personhood, displaying the unity and action of the body. The king's person became a naturalized symbol of totality, and his agency derived from his ability to encompass social and cosmic divisions. The Maya ruler was comparable to the heroic kings of Polynesia described by Marshall Sahlins, a sacred person whose actions unfold a collective history.

**Gillette, Donna (UC Berkeley)**

[196] *Validating Rock Art Research Through Multiple Methods of Inquiry: A Case Study from California*

The inability to scientifically date petroglyphs poses the question of how mainstream archaeology confers credibility to the often marginalized field of rock art studies. By approaching research through multiple methods of inquiry, substantial data can be generated to validate rock art studies and their contribution to archaeology. The Pecked Curvilinear Nucleated (PCN) tradition, found at nearly 100 sites in the Coastal Ranges of California provides a case study for this approach. Placing the tradition in both cultural and geographical landscape context, utilizing GIS, ethnographic analogy, and laser scanning, the generated data will enhance the corpus of knowledge of California prehistory.

**Gilli, Adrian (University of Florida), Hodell, David A. (University of Florida), Kamenov, George D. (University of Florida) and Brenner, Mark (University of Florida)**

[132] *Refinement of the Spatial Strontium Isotope Variability in the Maya Lowlands: Implications for the Feasibility to Reconstruct Ancient Migration*

Strontium isotope analysis on tooth enamel is increasingly being used to solve problems related to ancient migration, but requires a good knowledge about the spatial  $87\text{Sr}/86\text{Sr}$  variability throughout the region of interest. A detailed mapping of the Strontium isotope variability in the Maya Lowlands (Mexico/Guatemala) refines the previous proposed linear dependency of the Strontium isotope values between the Northern and Southern Lowlands. As a consequence, the Strontium technique can be used to trace migrations between certain archaeological sites within the Northern Lowlands as for example between Mayapán and Chichén Itzá.

**Gilligan, Shane [252]** see Owoc, Mary Ann

**Gilliland, Eric (Burns & McDonnell)**

[242] *Rockshelter Overhang Removal at Frog Bayou Shelter (3CW946)*

Excavations at Frog Bayou Shelter (3CW946), a small rockshelter in Crawford County, Arkansas, were conducted by Burns & McDonnell in early 2005 as a part of the Lake Fort Smith Water Supply Project. Prior to excavation a geologist determined that the rockshelter presented a danger of collapse. Several protection options were considered, and the mechanical removal of the rockshelter overhang was determined to be the most cost effective. This removal was accomplished using the procedures outlined in this paper. The protective measures were successful, and the overhang was removed without damaging the archaeological remains underneath.

**Gillott, Alan**

[166] *Infant Burials in Puerto Rico Associated with Pottery "Baby Bowls" or Urns Excavated by Froelich Rainey in 1934*

In 1934, as part of a survey organized by the New York Academy of Sciences in association with the Peabody Museum, Yale University and the American Museum of Natural History in New York, Froelich Rainey excavated a number of infant burials at Barrio Coto and Monserrate where the infant is either under or contained in a pottery vessel. This practice is unusual and appears to be limited to a few locations and a short period of time.

**Gilman, Antonio [85]** see Brodsky, Marcella

**Gilman, Patricia (University of Oklahoma)**

[7] *Few People, Lots of Integration: Early Villages in the Mimbres Region of the North American Southwest*

Archaeologists often invoke villages as large sites where the inhabitants were becoming more socially complex. I propose, however, that early villages were considerably different, beginning with fewer people per site than we might imagine. In contrast, there was much social integration across relatively great distances, as supported by similarities in architectural, ceramic, and ritual styles. These two points have implications for the kinds of agriculture practiced and the

amounts of residential mobility and sedentism. I will support my contention with data from the early pithouse sites in the Mimbres valley in the North American Southwest.

**Gilmore, Kevin (University of Denver)**

[171] *And Miles to Go Before I Sleep: A Model for Prehistoric Athapaskan Migration along the Western High Plains Margin*

The question of when and why the ancestors of the Athapaskan peoples of the Southwest and Southern Plains left their homeland in northwest North America and what path these people took on their journey south has long been debated. Their migration is incompletely understood because the physical evidence in the archaeological record is minimal. However, recent discoveries at archaeological sites in the Rocky Mountains and western High Plains demonstrate a 15th century Athapaskan presence in this area. Advantageous cultural adaptations and paleoenvironmental conditions facilitated proto-Apachean entry into Colorado, and low regional population density allowed this entry to be relatively uncontested.

[106] *see Chenault, Mark*

**Gilmore, III, R. Grant (St. Eustatius Center for Archaeological Research)**

[227] *"A Nest of Vipers:" 18th Century Trade on St. Eustatius*

St. Eustatius in the Dutch West Indies was the epicenter for both legal and illegal colonial trade for the Americas (1760-1800). Various called the "New Tyre," "The Golden Rock" and "The Diamond Rock," the free trade policy operated by the Dutch encouraged over 3500 ships to land in the roadstead each year, making it the busiest port in the world outside of China. The wealth thus generated is expressed in architectural, material cultural and historical records and affected all social and economic strata. This paper addresses all these elements and how Statia integrated in the global economy during this period.

**Gilmour, Daniel [100] *see Peabody, Joshua***

**Gingerich, Joseph (University of Wyoming)**

[138] *Preliminary Report on Excavations at Shawnee-Minisink*

Recent excavations spanning three years at Shawnee-Minisink, a stratified Paleoindian site in the Upper Delaware Valley of Pennsylvania, have revealed one of the densest Paleoindian activity areas ever recorded at the site. The data derived from these new excavations provides the opportunity to reevaluate the Paleoindian component of the site. This poster presents the preliminary results of the excavations and artifact analysis of the Paleoindian occupation level.

**Giovas, Christina M. (University of Washington) and Lefebvre, Michelle J. (University of Florida)**

[239] *My Island, Your Island, Our Islands: Considerations for Island Zooarchaeology as a Disciplinary Community*

Zooarchaeologists working in island settings are united by special challenges and issues, yet generally conduct research within geographic foci (eg. Oceania, Caribbean) whose boundaries hinder collaboration between practitioners and limit united approaches toward addressing larger questions in island archaeology. Here we call for greater dialogue and collaboration between zooarchaeologists working in varied island settings and argue for the need of an island zooarchaeology cooperative. We discuss the methodological and theoretical foundations underpinning this proposed disciplinary community, including questions of data collection/analysis, colonization, biodiversity and perceptions of insularity. We conclude with suggestions for fostering dialogue and directions for future research.

**Giraldo, Santiago (University of Chicago)**

[227] *Smuggling as Unexceptional: "Illegal" Trade and the Limits of Colonial Control in the New Kingdom of Granada*

This paper explores the establishment of smuggling in the provinces of Santa Marta and Riohacha during the 16th century, highlighting how the flow of illegal goods contributed towards the establishment of a different form of colonial order. While no less colonial in nature, it differed greatly from the models produced by the metropolis and was perceived as a threat to effective rule and economic monopoly. Nevertheless, smuggling played a crucial role in the survival of these small colonies, and the inapplicability of laws against this activity established it as an accepted social practice.



**Giraud, Rachel Faye (University of California, Berkeley)**[92] *Archaeology and San Identity Politics in Postcolonial Africa*

The archaeology of southern Africa's indigenous San people uncovers unique material culture and prehistoric imagery in the region that are used for economical and ideological purposes by African nations. Not only does archaeological interpretation of these materials directly impact the representation of San heritage worldwide, at the national level it plays an important role in the political imagination of these postcolonial African states. Drawing on two case studies, this paper will compare the use of San material culture for tourism and the politics of San identity in South Africa and Botswana.

**Glaab, Rigden (Montgomery Archaeological Consultants)**[120] *Liminal Interfaces: The 2004 Season of the Dos Hombres-Gran Cacao Intersite Research Program*

This paper will encapsulate data and theory developed from the 2004 season of the Dos Hombres-Gran Cacao Intersite Research Program (DGIRP). As an active component of the Programme for Belize Archaeological Project, this research aims to study social interaction from a regional and local perspective utilizing intersite settlement patterns. Specifically, intensive mapping is employed to describe the cultural relationships and differences shared by the adjacent centers of Dos Hombres and Gran Cacao, Belize. Topics to be discussed will include research orientation, methodology, and the archaeological findings of this productive session.

**Gladwell, Randi (Vanderbilt University)**[69] *Upper Formative Period Bone Tool Industries at Khonkho Wankané (Bolivia)*

Recent excavations at Khonkho Wankané, an Upper Formative Period cultural center located in the Desaguadero Drainage (Bolivia), implicate it as an influential ideological and political center where social groups congregated and from which ideas disseminated to other areas of the Southern Titicaca Basin. Examined here is the application of Bourdieu's (1977) concept of habitus in the analysis of bone tool assemblages from the site of Khonkho. Techniques of bone tool production, patterns of use wear, bone element selection, and spatio-temporal contexts are analyzed to elucidate social productive practices in Formative Period bone tool industries within and beyond Khonkho.

**Glantz, Michelle (Colorado State University), Tostevin, Gilbert (University of Minnesota), Suleimanov, Rustam (National University of Uzbekistan), Ritzman, Terrence (Arizona State University) and Adams, Jeffery (Colorado State University)**[162] *The Chronological Context of Middle Paleolithic Deposits at Anghilak Cave, Uzbekistan*

Previous reports concerning Anghilak cave have identified the deposits as Middle Paleolithic, the faunal assemblage as primarily the result of hominid behavior, and the human metatarsal as taxonomically non-diagnostic. Here we present data on the chronological context and a more detailed analysis of the lithic assemblage. Relatively young AMS dates (27,000 14C BP-42,000 14C BP) were somewhat unexpected given the typical Mousterian character of the lithics. Because these new dates represent some of the first from the region, interpretations of Anghilak's assemblages shed light on the chronology and character of the Central Asian Paleolithic, compared to better known Old World regions.

**Glascock, Michael** [44] see Popelka-Filcoff, Rachel; [52] see Descantes, Christophe; [103] see Rodríguez-Alegria, Enrique; [138] see Boulanger, Matthew; [219] see Sharratt, Nicola; see Williams, Verónica I.; [219] see Laguens, Andres; [236] see Watson, Karen

**Glascock, Michael D. (University of Missouri), Crock, John G. (University of Vermont), Morse, Birgit F. (Yale University) and Petersen, James B. (University of Vermont)**[52] *Preliminary Interpretations of Ceramic Compositional Analysis from Late Ceramic Age Sites in Anguilla and the Salt River Site in St. Croix*

Late Ceramic Age ceramic samples from five sites in Anguilla, British West Indies, and the two most recent occupations at the Salt River site, St. Croix, U.S. Virgin Islands, were analyzed by instrumental neutron activation analysis (INAA) at the University of Missouri Research Reactor Center (MURR). Compositional analysis of ceramic sherds from various archaeological contexts on these two islands helps address issues related to ceramic production, inter-island trade and exchange, and cultural affiliation.

**Glassow, Michael (University of California, Santa Barbara) and Paige, Peter (Deceased)**[89] *Fishing on Western Santa Cruz Island Between 2,000 and 1,000 BP*

Site CA-SCRI-195, located on western Santa Cruz Island, California, is one of several large

shellmounds in the vicinity with deposits reaching five or more meters in depth. Two column samples were collected from the seacliff edge bisecting the deposits, which date between 2,000 and somewhat later than 1,000 BP. The fish remains in these samples reflect fishing practices during a period when the Chumash plank canoe became important. Changes in taxa represented by the fish remains give some indication of the increasing importance of fishing, but relating these to the advent of the plank canoe is not straight-forward.

**Glassow, Michael A. (University of California, Santa Barbara)**

[110] *Research Contexts of Site Boundary Definition*

Late in his career Jim Hill became interested in the nature of archaeological site boundaries and appropriate procedures for defining them. Although he wrote a lengthy paper on these topics, he did not live long enough to see it published. Hill's interest in site boundaries reflects his long-standing concern for rigor in generating data useful for comparisons. Somewhat unwittingly, however, Hill exposed some fundamental issues relating to research design development and the relationship between the archaeological record and human behavior. Hill's interest in site boundaries, therefore, serves as vehicle for exploring tenets surrounding the practice of archaeology.

**Glaude, Matt (Washington State University)**

[160] *Comparing the Spread of Agriculture to the Southwest to Known Demic and Cultural Diffusion Rates*

While the introduction of domesticated plants in the Southwest marked a significant change in subsistence practices, it is not clear how the cultural knowledge associated with the practice of agriculture was transmitted from north to south. This project attempts to measure the rate of spread of agriculture from Mesoamerican to the Southwest, and will then compare it to other known rates of demic and cultural diffusion. This comparison will help to evaluate competing models emphasizing either the migration of farmers or the cultural diffusion of an agricultural adaptation, and to note possible similarities.

**Glaz, Amanda [92]** *see* Preziano, Susan

**Glazer, Shannon (SUNY Binghamton)**

[250] *From Soup to Buttons: The Manufacture of Bone Buttons in a Historic, Institutional Setting*

Evidence for the manufacture of bone cores for cloth buttons found in association with 18th century prisons and almshouses in the U.S. raises interesting questions. How did the residents acquire and hand-process the bone? Were button cores made for commercial or personal use? These questions were approached by experimentally processing a variety of skeletal elements in different ways. This process included investigating which meat cuts were consumed, determining which elements were available, sawing blanks, experimenting with different blank treatments, and drilling buttons from the blanks. Results were applied to a case study, an 18th century almshouse in New York City.

**Glennon, Shannon [35]** *see* Byrnes, Allison

**Glover, Jeffrey B. [33]** *see* Rissolo, Dominique; [177] *see* Fedick, Scott

**Glowacki, Mary [248]** *see* Newman, Christine L.

**Gnecco, Cristóbal (Universidad Del Cauca) [154]** *Discussant*

**Gnivecki, Perry (Miami University (Ohio))**

[244] *Shell-tale Signs: Lucayan Shell Bead Production and Consumption*

The Three Dog site, San Salvador, Bahamas is one of the earliest sites in the central Bahama Archipelago. Over 220 shell beads, fragments, and blanks were recovered. The little picture can tell us something about shell bead production and consumption and how shell beads reflect site spatial organization. How do shell beads from the Three Dog Site contribute to our understanding of the big picture over time and space and the emergence of the Lucayan-Taino (Lukki-ciari) as a cultural entity or a set of cultural entities?

[244] *Discussant*

**Goldbach, Jason (South Dakota Archaeological Research Center)**

[187] *A Recent Reconnaissance of the Sully Site, 39SL4, a South Dakota Earthlodge Village Exposed During Low Water*

In this paper, the author summarizes the fieldwork, research and literature of South Dakota's earthlodge village, the Sully Site, (39SL4). Despite the completion of several sessions of fieldwork, the site has never been treated by a complete report. The data and observations collected on a recent reconnaissance of the site are presented. The potential for buried deposits is discussed in relation to the spatial distribution of artifacts and processes associated with the damming of Lake Oahe. Based on this discussion, the author advocates the testing for site integrity and mitigation if warranted.

**Goldberg, Paul [143]** see Schiegl, Solveig; **[59]** see Marean, Curtis

**Golden, Charles W. [190]** see Scherer, Andrew K.

**Goldman, Talia (Hebrew University), Feibel, Craig (Rutgers University) and Hovers, Erella (Hebrew University)**

[17] *Lithic Raw Material Selection at the Late Pliocene Site AL 894 (Hadar, Ethiopia)*

The lithic assemblage from AL 894 (Hadar, Ethiopia) is among the largest discovered from a late Pliocene archaeological occurrence. Raw material analysis of the assemblage suggests differences in selection patterns between this and broadly contemporaneous Oldowan assemblages. We use the AL 894 assemblage as a case study that underscores methodological issues in raw material research on early lithic assemblages. We focus on questions of sampling and quantification and their effects on understanding decision making processes by early stone tool makers. Taking these into account, our results also underline the differential effects of various raw materials on assemblage typo-technological composition.

**Goldsmith, A. Sean (University of Calgary) and Stockdell, Eric K. (Indiana University)**

[189] *Reconnaissances in the Settlement of Chau Hiix*

Concerted efforts during the past four seasons of research at Chau Hiix have revealed significant spatial trends in the settlement pattern surrounding this ancient Maya city. Clustered distributions of surface-visible mounds have been linked variously to landscape features, economic nodes, temporal shifts, and principles of community integration. New data collected during the 2005 season allow comparison of settlement features at different distances and directions from the central precinct than were previously possible.

**Goldstein, David J. (Southern Illinois University) and Hageman, Jon (Northeastern Illinois University)**

[109] *Assessing the Consumption of Non-Domesticated Plants by the Late Classic Lowland Maya*

Issues related to sample recover and preservation in Neotropical rainforest contexts often limit the analysis of plant foods in the diet of the Late Classic (AD 600-900) Maya. Our recent archaeological investigations of commoner feasting and domestic middens in northwestern Belize indicate that archaeobotanical remains can be recovered when flotation and dry sieving techniques are used together. This approach yielded the recovery of a variety of species that are often considered "wild" or "non-domesticated" in food disposal contexts. The ecological understanding of these species allows us to reconstruct both the catchment area and their contribution to food production over and above domesticated plants. This also allows us to compare everyday consumption with foods consumed periodically in ceremonial contexts.

**Goldstein, Lynne (Michigan State University)**

[47] *Aztalan Mortuary Practices Revisited*

The late prehistoric Aztalan Site in southeastern Wisconsin has been the focus of speculation regarding its mortuary practices for many years; even Jane Buikstra has gotten involved. People have proposed cannibalism, princesses, mound burials, secondary burials, individual interments, crematories, and other ritual practices. Indeed, one of the most puzzling aspects of the site is that there has not been a specific mortuary area or cemetery located. Since 1998, I have been coordinating almost 100 years of research at the site, as well as conducting some new research. This paper will attempt a new summary and interpretation of Aztalan mortuary practices.

**[43]** see Quates, E.W. Duane

**Goldstein, Paul (University of California, San Diego)**

[12] *Man, Woman, Place and Medium: Gendering Ceremony, Ceramics and Power in Tiwanaku Culture*

Gendering power relations is notoriously difficult for prehistoric complex societies like Tiwanaku. Tiwanaku's primary media (slip-painted serving pottery, stone carving and tapestry textile) rarely depict identifiable females. Domestic and mortuary contexts may suggest some gendered activities and statuses, but more work is needed. I present two new sources of information on gendered space and activities in Tiwanaku: 1) a ceremonial activity area excavated at the Chen Chen site that suggests gender-specific ritual, and, 2) a hitherto uninvestigated "subversive" ceramic tradition of female depiction. The potential for associating distinct ritual spaces and stylistic media with gendered spheres of power and meaning is considered.

[68] see Green, Ulrike M.

**Golitko, Mark (University of Illinois at Chicago) and Keeley, Lawrence (University of Illinois at Chicago)**

[61] *Linearbandkeramik Enclosures: Evidence of Fortification in the Early Neolithic of Central Europe*

Though formerly viewed as extremely peaceful, the Linearbandkeramik culture has been demonstrated recently to have been exceedingly violent. Burial trauma indicates that violence in the LBK was comparable to that in the most violent ethnographically documented societies. Never the less, many researchers assign a ritual function to enclosed LBK sites. A review of all known LBK enclosures, however, demonstrates that over 70% of them possess one or more features typically associated with defensive architecture, and there is a marked correlation between the geographical and chronological distribution of burial trauma and enclosed sites, strongly suggesting that they are fortifications.

**Golson, Nick [119]** see Graham, Elizabeth

**Gomez, Esteban (University of California, Berkeley)**

[122] *"The land was very poor and sterile:" The Archaeology of Colonial Period Eastern El Salvador and the Gulf of Fonseca*

In combination with archaeological data from Isla Conchagüita, the available textual data for the Gulf of Fonseca will be essential to developing a more informed anthropological understanding of the Gulf of Fonseca's socio-political landscape during the early Spanish colonial period. Preliminary research on ethnohistorical accounts of the Gulf of Fonseca and the historical records available at the Archivo General de Centroamerica (AGCA) has provided specific observations of the Gulf region and its communities, both indigenous and Spanish. The integration of these two data sets will be essential for investigating Isla Conchagüita's position within the Gulf of Fonseca and surrounding areas.

**Gomez, Sergio (Instituto Nacional de Antropología e Historia)**

[142] *La Investigación Arqueológica y la Conservación del Patrimonio en Teotihuacán. Perspectivas y Propuestas*

El sitio de Teotihuacán constituye un paradigma para la investigación arqueológica de diferentes aspectos: el origen y el colapso de los sistemas sociopolíticos, el urbanismo, el Estado, el gobierno, la ideología, la - escritura, la producción, el comercio, las condiciones de vida y salud de la población entre muchos otros temas. Sin embargo, debido a que el Estado mexicano mantiene la rectoría sobre la arqueología y por derecho la custodia y la conservación del patrimonio arqueológico e histórico, se ha condicionado y orientado la práctica de la disciplina arqueológica a la realización de proyectos coyunturales, enfocados a la exploración, restauración y exhibición de los grandes monumentos en sitios que como Teotihuacán, fueron por siglos la sede del poder político y económico de amplias regiones.

**Gomez, Sergio [236]** see Spence, Michael

**Gonzalez, Jason J. (Southern Illinois University at Carbondale)**

[87] *Rural Settlement and Landscape Reflecting Classic Period Political Change in Northwestern Belize*

From a settlement perspective this research project addresses social and political relations between a subsidiary community, Ixno'ha, and the regional center of La Milpa, in northwestern Belize. Research indicates that during the Classic period political orientation shifted from one of dispersed Early Classic communities to a region dominated by La Milpa to one of decentralization and heterogeneity of site planning, settlement, and landscape. To understand

these intra-regional community interactions over time this research considers the small rural community of Ixno'ha and urban La Milpa, by comparing domestic oriented landscapes defined by settlement patterns, sociocultural ties, and subsistence behaviors.

**Gonzalez, Sara (University of California, Berkeley)**

[186] *Framing Colonial Identity at Fort Ross, CA*

While studies of colonialism once described a narrative of acculturation and assimilation, contemporary works stress Native Americans' agency and their resistance to European colonialism. While these new studies create an awareness of the multiple perspectives and outcomes of colonial encounters, to what degree do they reify essential notions of social identity? How can archaeologists begin to approach social identity as a flexible and fluid process, while also recognizing the implications for modern Native American communities? This paper will consider these issues within the context of Fort Ross State Historic Park, a 19th century Russian American Company mercantile outpost.

**Gonzalez, Susana (CSU, Long Beach), Hodgins, Gregory (AMS Dating Laboratory U. of Arizona), Burr, George (AMS Dating Laboratory U. of Arizona), Dean, Jeffrey (Laboratory of Tree-Ring Research U. of Arizona) and Neff, Hector (CSU, Long Beach)**

[44] *Differences in Measurable Radiocarbon Due to Latitude and Elevation*

Small differences in radiocarbon results from coeval samples taken from various latitudes and elevations may increase the error in the ages assigned to archaeological samples. In this study we compare  $\Delta 14C$  in tree-rings from seven latitudes within the North American continent, with the most northern site located in Canada and the furthest south site located in Mexico. In order to monitor the differences that may have been produced across latitude and elevation, we used accelerator mass spectrometry to measure five-year blocks of tree rings at ca.  $\pm 2.5\%$  precision to test whether measurable differences exist in radiocarbon in trees.

**Gonzalez, Tamara [27]** see Valdes, Yuri

**Gonzalez Heredia, Raymundo [177]** see Folan, William J.

**Gonzalez Licon, Ernesto**

[235] *Ritual and Social Stratification at Monte Alban Oaxaca: Elite and Common People Strategies from a Household Perspective*

In this paper I explore the strategies followed by the elite of Monte Alban in their constant need to establish and reinforce legitimacy and the impact that these actions had on common people, since the city's foundation in Late Formative (500 BC) to Late Postclassic period (AD 1300-1521). Using patterns of ritual and ceremonialism, demographic growth, domestic architecture, and funerary practices as archaeological indicators, I compare economical, social, and ideological differences between elite and common people through time, but also internal variability among each social stratum.

**González Tendaro, José B. [112]** see Fernández-Ortega, Racso

**Gonzalez-Ruibal, Alfredo (Stanford University)**

[121] *The Past Was Tomorrow: Towards an Archaeology of the Vanishing Present*

While conducting ethnoarchaeological research in Spain and Ethiopia, I have been faced with the theoretical and practical shortcomings of this discipline, too deeply rooted in modernist concerns and prejudices. This paper arises from a dissatisfaction with the "Great Divides" created between past and present, self and others, people and material culture by ethnoarchaeology. I propose a reconsideration of an archaeology tout court, symmetrical in character, in which present and past are not hierarchically conceived - the former at the service of the latter or vice versa - nor strictly separated, and in which the relations between humans and things are properly problematized.

**Goodale, Nathan (Washington State University) and Edwards, Yvonne (University College London)**

[61] *Analytical Integration Applied to the Forager/Farmer Transition: Subsistence and Technological Evolution at 'Iraq ed-Dubb, Jordan*

Past analytical discussions of the forager/farmer transition traditionally focus on a single aspect of material culture with modest integration of other datasets. By adopting an integrative approach this paper combines multivariate statistical measures and GIS to elucidate patterns of cultural

evolution. At 'Iraq ed-Dubb these patterns include changing technological organization, a diversification of activities and tighter spatial definition of activity areas. These three topics are explored by integrating faunal and lithic data from the Late Natufian and Pre-Pottery Neolithic A occupations. Ultimately, conclusions from this study will aid our understanding of the evolutionary causes and consequences of domestication.

**Goodale, Nathan [133]** *see Carlson, Eric*

**Goodchild, Fiona [148]** *see Rebich, Stacy*

**Goodman, Dean (Geophysical Archaeometry Laboratory), Pantel, Agamemnon (Polytechnic University of Puerto Rico), Schneider, Kent (United States Forest Service) and Garrison, Ervan (University of Georgia)**

[22] *GPR Archaeometry*

Subsurface imaging of archaeological sites with ground penetrating radar has been made successful with the development of advanced softwares ([www.GPR-SURVEV.com](http://www.GPR-SURVEV.com)). Signal processing of radargrams followed by appropriate image processing of rendered reflection signals, is the key for the archaeological interpreter to make practical use of the GPR method. Examples of subsurface images generated at a variety of archaeological sites in Puerto Rico, Japan, Italy, and the United States is presented using GPR-SLICE Ground Penetrating Radar imaging Software. Image presentations include 3D animations of shallow depth slices, isosurface rendering, synthetic radargram forward modeling, and overlay compositing analysis to extract archaeological features.

**Goodman, Dean [22]** *see Jones, Stephen; [22] see Schneider, Kent*

**Goodman Elgar, Melissa [77]** *see Peterson, Marcia*

**Gordon, Angela (Washington University in St. Louis)**

[109] *The View from Mexico: Domesticated Chenopods in Eastern North America*

Although there is abundant archaeological evidence for a domesticated chenopod in Eastern North America prior to European contact, little information is available about the cultivation practices and use of this prehistoric crop. In Mexico, however, the same species (*Chenopodium berlandieri*) is grown today as three very distinct crops. The Mexican huazontle, quelite, and chia are grown for their immature flowering heads, fresh greens, and bright red seeds, respectively. Results from work with Mexican farmers and laboratory analysis of modern Mexican seeds are providing new ways of looking at the prehistoric Eastern North American crop.

**Goren-Inbar, Naama (Hebrew University) [17]** *Discussant*

**Goring-Morris, Nigel (Hebrew University) and Belfer-Cohen, Anna (Hebrew University)**

[7] *"Great Expectations" or the Inevitable Collapse of the Early Neolithic in the Near East*

Neolithisation is commonly conceived as an incremental continuum, with minor disruptions occurring within the framework of increasingly sophisticated and complex circumstances. Yet, in retrospect, inherent pitfalls are readily apparent in the Neolithic PPNB floruit in the Near East. These pitfalls relate to the "first time" nature of most Neolithic phenomena; problems could not be resolved by reference to past experience or established institutions. All Early Neolithic people were novices, ignorant of the potential disasters inherent in the momentous transformation their societies were experiencing. They were engulfed by all manner of stresses related to social, demographic, economic, and health factors.

**Gosden, Christopher (University of Oxford) [91]** *Discussant*

**Gould, Delland [97]** *see Luhman, Hope*

**Gould, Richard (Brown University / Forensic Archaeological Recovery)**

[18] *Forensic Dimensions of Disaster Archaeology*

How should forensic archaeology confront the realities of mass-fatality disaster scenes? A recent paper in *SCIENCE* exhorts all forensic investigators to examine their scientific assumptions in order to avoid errors in medicolegal identifications. Recent experiences in forensic archaeology at disaster scenes can point toward ending the "theory wars" in archaeology, especially between "processualists" and "post-processualists." Scientifically-grounded approaches that are empirical

and probabilistic provide acceptable and convincing results in both the court of law and in the court of history.

**Gouvêa Luiz, J. [90]** *see Lopes, Paulo do Canto*

**Graesch, Anthony P. (UCLA)**

[41] *Social Evolution in the Wake of European Contact: Sto:lo (Coast Salish) Household and Community Organization at Welqamex, Southern British Columbia*

Archaeological studies of indigenous houses and households in western North America, including those in the Northwest Coast, Plateau, and northern Channel Islands regions, exemplify the importance of analytically detailed research programs directed at understanding variability in household composition and organization. This poster highlights research addressing inter-household differences in wealth, status, and access to regional exchange networks at Welqamex, a Late and Historic phase island community situated in the upper Fraser River Valley, southern British Columbia. Household data deriving from three seasons of survey and excavation are presented, and implications for modeling the social evolution of intermediate societies in the wake of European contact are discussed.

**Graesch, Anthony P. [44]** *see Arnold, Jeanne E.*

**Graff, Sarah R. (University of Chicago)**

[41] *Third Millennium BC Trade Routes in the Northern Orontes Valley of Western Syria*

This poster will illustrate current research on trade in the Orontes Valley, Syria. While Roman trade routes have been known from contemporary authors such as Libanius, many trade routes prior to this period have been assumed. Archaeological evidence from the Ghab region can now provide data regarding third millennium BC trade routes within this section of the Orontes Valley. A combination of data from the excavations at Tell Qarqur and survey data from the Northern Ghab Regional Survey will point out the local and long distance movement of goods in this region elucidating its importance in the Early Bronze Age.

**Graham, Elizabeth (University College London (UCL)) [87]** *Discussant*; [189] *see Andres, Christopher R.*; [70] *see Peros, Matthew*

**Graham, Elizabeth (University College London (UCL)) and Golson, Nick**

[119] *Status, Power, and Propaganda*

Warwick Bray's work covers a wide range of topics, but one of the threads that runs through his research is an interest in symbols of status and power, with gold and metals featuring prominently. A recent contribution (Bray 2003) on Aztec goldwork emphasizes the ways in which symbols of status reflect the driving forces of tribute extraction and its justification, and the means by which tribute was secured. In this paper, we discuss exchange, ideology, warfare and tribute in terms of resource control and what the maintenance of control entailed among the Aztecs and the Maya.

**Grasso, Sara (University of California, Santa Barbara), Blom, Deborah (University of Vermont) and Couture, Nicole (McGill University)**

[218] *Mortuary Contexts, Urban Organization and Personhood: Evidence from Mollo Kontu, Tiwanaku*

For centuries (ca. AD 500-1100), Tiwanaku was the ceremonial and political core of a prehispanic state centered in the Lake Titicaca Basin of Bolivia. Recent research has suggested that the capital city of Tiwanaku comprised various social groups differentiated by socioeconomic status and/or ethnic or ethnic-like affiliation. Excavations in the Mollo Kontu sector of the site have generated preliminary data to further explore these hypotheses. This paper reports findings from the Mollo Kontu mortuary contexts and their contribution to understanding urban organization, the production of social identity, and the nature of personhood at Tiwanaku.

**Grau, Ignacio (University of Alicante, Spain)**

[220] *Agricultural Intensification and Political Centralization in Classical Landscape of Eastern Iberia: Alternative Models for Divergent Dynamics*

This paper is a GIS analysis of the landscape dynamics during Iberian Iron Age and Roman Period in Valencia Region, Eastern Spain. We focus on the development of agricultural intensification by manuring, documented during intensive fieldwalking. It is possible to relate intensification to development of Early Iberian States during the 3rd century BC. This centralized polity was ruined by the Roman conquest in the late 3rd cent. but agricultural intensification

continued. This discrepant trend of oscillations in political centralization and continuity in agricultural intensification invalidated traditional explanations of top-down decisions. We propose an alternative explanatory framework, in which peasantry organization and motivations are analyzed.

**Grave, Peter (University of New England) and Kealhofer, Lisa (Santa Clara University)**

[232] *The Anatolian Iron Age Ceramics Project: Characterising Economic and Political Interaction with Very Large Datasets*

Historically, ceramic elemental studies in the Middle East have been decoupled from the broad scale questions anthropologists like to ask. Arguably, this situation has been driven, in part, by limitations in conventional static methods of data modeling and interpretation. Recent improvements in computer processing capacity and dynamic visualization software now allow us to match our research questions about complex societal dynamics with an appropriate scale of analysis. This five year project involves characterizing a broad range of ceramics (~10,000) from a large number of excavated sites in Central and Western Anatolia (25-30) to understand relationships between intra- and inter-regional exchange.

**Grave, Peter [232]** see Kealhofer, Lisa

**Gray, Nadine (University of British Columbia)**

[164] *A Regional Analysis of Ancient Maya Chultunob (Underground Chambers): A Discussion of Trent Sponsored Research*

Curiosity and speculation have been circulating about chultunob since the initial investigations in Central America began. In an effort to understand the function and distribution of these chambers, several projects sponsored by Trent University have excavated chultunob in the Belize Valley. The results of these projects will be discussed with a focus on how these investigations have provided new perspectives about chultunob. Unlike the chambers of the Northern Lowlands which were utilized as water catchment areas, the chultunob of the Southern Lowland sites appears to have served three functions: burial chambers as well as areas for storage and ritual activities.

**Green, Kelsey (Ripon College) and Whitehead, William (Ripon College)**

[4] *Domesticated Plant Resources at Conchopata, a Wari Site in the Ayacucho Valley, Peru*  
This poster will present evidence of domesticated *Chenopodium quinoa*, *Zea mays*, *Phaseolus* spp., and other minor plant species. Conchopata will be compared to several other Middle Horizon sites, including Tiwanaku in the central Andes.

**Green, Ulrike M. (UC San Diego) and Goldstein, Paul (UC San Diego)**

[68] *Expansive States and Local Populations: Spatial Analysis of Wari and Local Ceramics from Cerro Trapiche, Moquegua, Peru*

Frontier interactions between expansive states like Wari and Tiwanaku and peripheral populations suggest multifaceted relationships between colonists and indigenous agriculturalists. Analysis of ceramics from recent excavation and systematic surface collection at the multi-component Cerro Trapiche site indicate complex interactions between Wari colonists and the local tradition known as Huaracane. We compare and contrast this relationship with the adjacent dominant Tiwanaku occupation of the same valley. This case study illuminates differences between these two states' integration and consolidation strategies.

**Greene, Alan [71]** see Lindsay, Ian

**Greene, Mary K. (University of New Mexico), Harris, John W.K. (Rutgers University), Scuderi, Louis (University of New Mexico) and Pope, Paul (Los Alamos National Labs)**

[143] *Use of Multispectral Thermal Imagery to Map Fossiliferous Sediments of the Koobi Fora Formation, Northwestern Kenya*

Over 450 hominin specimens ranging in age from 4.3 to 1.2 million years have been found in the sediments of the Koobi Fora Formation, northwestern Kenya. Imagery from the Multispectral Thermal Imagery satellite was used to create a digital surface geologic map of the Koobi Fora Formation. This map has an absolute accuracy of 73 meters in latitude and longitude. The linear spectral unmixing classification technique was successfully applied to the map to define tuffaceous sediments. Because hominin fossils are often associated with this lithology at Koobi Fora, this technique may be of use in defining future sites of paleoanthropological significance.



**Greer, John (Greer Services) and Greer, Mavis (Greer Services)**[126] *Rock Art on the Upper Orinoco, Southwestern Venezuela*

Painted rock art along the river valley and its tributaries can be viewed as a series of temporal styles representing both local development and external influences. Surrounding areas have not been synthesized, and the extent of the suggested chronological ordering therefore is not known, but similarities with nearby areas of Brazil, other parts of northern South America, and the Caribbean suggest the possibility for a widespread general developmental scheme. Intensive petroglyph production may come in generally late within the sequence, with a different internal structure and distribution.

**Greer, John [196]** *see Greer, Mavis*

**Greer, Mavis (Greer Services), Greer, John (Greer Services), Keyser, James D. (USDA Forest Service) and Hartless Greer, Melissa (Longwood University)**[196] *The Pros and Cons of Tracing in Rock Art Recording: The 2005 Season at Bear Gulch Pictographs, Montana*

Tracing is a common rock art recording method that has been criticized because of potential impact from direct contact. Although other noncontact techniques are available (e.g., computer tracing of photographs), direct field tracing is sometimes considered necessary for accuracy. The Bear Gulch site in central Montana serves as a test case to compare hand-tracing versus computer tracing relative to expended time and accuracy. Results indicate that for complete recording, the methods are complementary, with field tracing used with caution.

**Greer, Mavis [126]** *see Greer, John*

**Greer, Sheila [132]** *see Richards, Michael*

**Gremillion, Kristen J. (Ohio State University), Sherwood, Sarah (University of Tennessee), Windingstad, Jason (University of Tennessee), Mickelson, Katherine R. (University of Memphis) and Mickelson, Andrew (University of Memphis)**[109] *Pre-Maize Food Production and Anthropogenic Landscapes in Eastern Kentucky*

Recent multidisciplinary investigations of river valley deposits in eastern Kentucky reveal an upland farming system adapted to limited floodplain acreage, dynamic stream systems, and the demands of population mobility on a topographically rugged landscape. The subsistence strategy of early food producers combined small-scale plant cultivation with foraging and food storage. Several lines of evidence point to increased disturbance of vegetation and soils and changing patterns of land use across the transition to agriculture.

**Grenda, Donn R. [79]** *see Maxwell, David*

**Griffin, Robert E. (Pennsylvania State University), Saturno, William A. (University of New Hampshire) and Sever, Thomas L. (NASA Marshall Space & Flight Center)**[48] *Remote Sensing the Ancient Maya Landscape around San Bartolo, Peten, Guatemala*

In collaboration with the NASA Marshall Space and Flight Center, the Regional San Bartolo Project has been ground-truthing remotely sensed data in the Ixcán Rio Basin of northeastern Guatemala. These data include those from the Landsat TM/ETM, IKONOS, and Quickbird satellites. Field work over the past several years has identified specific signatures in the satellite imagery that, within the karst landscape of the interior Maya lowlands, positively correspond with areas of ancient human occupation. This research supports that of the past several decades in demonstrating the applicability of new remotely sensed data in reconstructing prehistoric social landscapes.

**Griffith, Cameron (Indiana University)**[126] *Grace and Transfiguration Beyond the Xibalban Doors of Perception: Further Investigations into Ancient Maya Monumental Modified Speleothem Sculpture*

The 2005 occasional paper by the American rock Art Research Association presented the academy with a new class of cave art, monumental Modified Speleothem Sculpture (mMSS). Since the submission of this publication investigations by the Western Belize Regional Cave Project have revealed more mMSSs as well as speleothem modification beyond the scope of those previously identified. This paper presents several newly discovered works of art from the caves of Belize and provides possible interpretations of the various art forms.

**Grigsby, Jeffry [145]** *see Rice-Snow, Scott*

**Grim, Todd (Utah State University), Pitblado, Bonnie (Utah State University), Kiahtipes, Chris (Utah State University), Merriman, Chris (Utah State University) and Gabe, Caroline (Utah State University)**

[105] *Getting High in Colorado: Testing the Historic Capitol City Moraine Site*

This poster presents data gathered by 2005 Utah State University (USU) field school participants at the Capitol City Moraine site (5HN510). Located at an elevation of nearly 3000 meters above sea level in the mountains of southwestern Colorado, the site was first recorded in 1995 during a Section 106-mandated survey. Surveyors encountered numerous historic artifacts, and notably, a possible Clovis projectile point. The potential for buried Paleoindian deposits brought the USU team to the site in June 2005. Although intact Paleoindian remains proved elusive, test excavations revealed cabin remains, foundations of outbuildings, and myriad late nineteenth- to early twentieth-century artifacts.

**Grimm, Linda (Oberlin College), Seidel, Andrew (Oberlin College) and Koetje, Todd (Western Washington University)**

[100] *Ties that Bind: Chronological Applications of Lithic Refitting*

Segregating occupational palimpsests presents methodological challenges that confound conventional methods of spatial analysis. We revisit Upper Perigordian remains from the open-air site of Solvieux (Dordogne, France) where previous attempts at spatial characterization using K-means suggest some mixing of occupational episodes. A new analytical strategy is developed that examines refit units in terms of spatial characteristics, raw material type, and technological attributes. In conjunction with K-means, this strategy provides a basis for the recognition of discrete depositional events in Locality 6 at Solvieux and consequently enables the clarification of horizontal patterning.

**Grinnell, Calvin (Three Affiliated Tribes), Pavao-Zuckerman, Barnet (University of Arizona) and Zedeno, Maria Nieves (University of Arizona)**

[2] *Reconstructing Landscape Knowledge and History from Bundles*

Ceremonial bundles are central to Plains Indian religion. Mandan bundles specifically, contained unusual natural and cultural materials needed for the good functioning of the world; their contents and meanings were known only to those who held rights to them. With many bundles destroyed or in museum collections, this pivotal knowledge is inaccessible to the Mandan. Collaborative research aims at reconstituting the bundles' body of knowledge and practice that was lost in the 20th century through the identification of animal and plant species traditionally used in bundles and corresponding historical environments now under the Missouri River waters.

**Grinnell, Calvin [2]** *see Hollenback, Kacy L.*

**Gronenborn, Detlef (Romisch-Germanisches Zentralmuseum)**

[19] *The Pulse of Progress: Holocene Cooling Events and the Neolithic Expansion across Western Eurasia*

The abundance of palaeoclimatic data available also for the Holocene allows a much closer correlation of climate events and anomalies with phases of culture change. These correlations are especially striking for the emergence and expansion of farming. The paper reviews the current evidence and discusses further strategies for a climate-related archaeology of the European Neolithic.

[240] *Discussant*

**Grosman, Leone [61]** *see Dubreuil, Laure*

**Grossman, Kathryn [233]** *see Monahan, Belinda*

**Grove, David (University of Florida)**

[207] *Monumentality and Interregional Interaction at Chalcatzingo, Mexico*

Chalcatzingo's early expressions of monumentality make it unique in Mexico's central highlands. Those expressions seem to have evolved in two distinct stages. Early Formative period monumentality is evidenced in large-scale terracing and mound construction, and interregional interactions appear oriented to the Valley of Mexico and west-central Mexico. Middle Formative period interactions took on a greater southward focus, and a new form of monumentality was incorporated into the site and its natural landscape: Olmec-like bas-relief

rock art manipulated to local conventions. Late Formative interactions refocused northward again, and a new form of monumental construction appeared regionally, the pyramid mound.

[86] *Discussant*

**Gruber, Janna (University of Oklahoma)**

[141] *Mimbres Health, Disease, and Intraregional Relationships*

Mimbres human remains are an understudied archaeological resource. These remains have the potential to provide insight into health, disease and genetic relationships. The foci of this research are to distinguish any transitional incidences in overall health of these skeletal remains in the shift from pithouse to pueblo (AD 800-1130), as well as an analysis of possible genetic relationships throughout time and space in the Mimbres region. This poster examines the Mimbres Foundation skeletal material housed at the Maxwell Museum at the University of New Mexico, and represents the only standardized osteological analysis of the skeletal remains excavated from these sites.

**Gruber, Thomas (University of Oklahoma) and Schriever, Bernard (University of Oklahoma)**

[75] *Mimbres Ceramics in the Chihuahuan Desert of Southwestern New Mexico: A Product of Exchange or Local Manufacture?*

Although Mimbres pottery is widely distributed across the southern Southwest, it is often assumed that it was manufactured within the Mimbres heartland and then exported. Archaeologists tend to dismiss the potential that production occurred in the large portion of the Mimbres region because of the perceived lack of critical resources needed. We present the INAA data for ceramics gathered from Mimbres sites in the Chihuahuan Desert of southwestern New Mexico. The results indicate that the occupants of these sites both imported ceramics from the Mimbres heartland and were able to acquire the materials needed to manufacture the ceramics locally.

**Guderjan, Thomas (Texas Christian University)**

[238] *Restructuring of Maya Society at the End of the Classic on the Caribbean Coast*

The restructuring of Maya society at the end of the Classic period is reflected in the settlement patterns of the Caribbean coast. Small ports of trade disappeared to be replaced by fewer, larger, defensible trade centers as the safety of royal patronage failed. Further, the widespread occurrence of "field walls" marked a major transition in land tenure among the Maya. These and other features not only give us an understanding of the events that occurred, but also provide a window into the Classic system that had been in place previously.

[115] *see Hanratty, Colleen*

**Gudiño, Alejandra (University of Missouri)**

[34] *The Yumbos and Palmitopamba: Emerging Chiefdoms in Northwestern Ecuador's Tropical Rainforest*

The Yumbos, vanished inhabitants of the western slope of Ecuador's northern Andes, formed chiefdoms in their mountainous habitat prior to the Inca invasion. Work in the region over the last two decades by Lippi and ongoing excavations at the Palmitopamba site reveal new information about these tropical forest peoples. Various kinds of evidence will be reviewed in an effort to determine whether Yumbos and other Barbacoan societies derived from Chibchans who spread out of Central America into Colombia. The impact of Inca presence at Palmitopamba around 1500 provides an opportunity to study the unusual relationship between these two polities.

[219] *see Lippi, Ronald D.*

**Guebard, Matt (Northern Arizona University)**

[99] *Legitimizing the Past for the Future: Reconciling Old Mistakes and Implementing New Initiatives in Site Preservation*

For 100 years, the Federal Government has taken a stake in archaeological site protection and preservation. Continuing this tradition, I conducted archaeological site assessment for three contemporaneous cliff dwelling sites at Tonto National Monument, Arizona. Over 240 architectural features were assessed using standardized forms and annotated photographs. Site information was recorded and analyzed using digital imagery software. Preliminary results illustrate relationships between environmental factors and structural stability. In addition, analysis also indicates recent preservation efforts performed by maintenance staff account for a large majority of adverse effects.

**Guernsey, Julia (University of Texas at Austin) [48] Discussant**

**Guernsey, Julia (University of Texas at Austin) and Love, Michael (California State University Northridge)**

[9] *La Blanca Monument 3: A Middle Formative Earthen Sculpture from Pacific Guatemala*  
La Blanca Monument 3, discovered in 2004, is formed of modeled earth and shaped as a quatrefoil. Quatrefoils, which derive from Early Formative depictions of caves and supernatural portals, do not appear per se until the Middle Formative, and Monument 3 is one of the earliest. Consistent with other quatrefoil imagery, the La Blanca version appears to be associated with underworld communication and expressions of elite power. Monument 3 was found on the edge of an elite residence, near the site center and principal mound. Its context and iconography suggest a ritual use linked to water, fertility, and underworld portals.

**Guerra, Jenny (Universidad del Valle de Guatemala) and Ishihara, Reiko (University of California, Riverside)**

[64] *Entering the Sacred Windows: An Ethnoarchaeological Study on the Beliefs and Rituals Related to Caves at Chocóla, Suchitepéquez, Guatemala*

The Chocóla Ethnoarchaeological Cave Subproject conducted a brief reconnaissance on the modern and ancient uses of caves in the Suchitepéquez area, Guatemala. This region is unique in that it is considered one of the prime areas where shamans continue to perform traditional ceremonies and consultations, yet research focusing on caves has largely been neglected. The preliminary survey highlights the importance of caves in the local people's daily lives as sacred places, home of good and bad spirits, and as places of water. Archaeological implications of modern uses of caves including material culture and spatial usage will be discussed.

**Guerra Santander, Ericka [212] see Wernke, Steven**

**Gurrero-Murillo, Narcizo (Mexican Environmental & Cultural Research Institute), Velazquez, Vacilio (Comunidad Indígena de Nuevo Parangaricutiro) and Gabany-Guerrero, Tricia (University of Connecticut)**

[65] *Collaborative Research in the Comunidad Indígena of Nuevo Parangaricutiro*  
The Comunidad Indígena (Purépecha) of Nuevo Parangaricutiro, Michoacán, Mexico collaborates with ethnohistorians, archaeologists, environmental scientists and geologists to research the ancient history of community lands and people. This Tarascan community is distinguished by its organizational model to communally manage natural resources and land autonomously. After the eruption of the Parícutin Volcano (1943), the community embarked upon a full-scale effort to reclaim their ancient territory. The CINSJP discusses proposed management strategies regarding newly documented cultural heritage sites and collaborative research with MEXECRI and university researchers.

**Gumerman, George (School of American Research & Santa Fe Institute) [118] Discussant**

**Gumerman IV, George (Northern Arizona University)**

[212] *The Moche Farmhouse: Commoner Farmers at Santa Rosa-Quirihuac*  
A recent focus on Moche domestic spheres provides the opportunity to explore the tremendous degree of architectural and artifactual variation in Moche households. Data from the rural farming village of Santa Rosa-Quirihuac demonstrates that Early Moche farmers were relatively self-sufficient in terms of production and consumption. Rather than supplying food for Moche elites and specialists, rural Moche farmers were attending to their own needs. These data, compared to the diversity of households at other Moche sites, suggest that the Moche socio-political system was relatively decentralized.

**Gunn, Christopher [207] see May Ciau, Rossana**

**Gurciullo, Kristen (Florida State University)**

[153] *Analysis of Heavy Fraction Flotation Samples from the Körös Regional Archaeological Project*

The analysis of heavy fraction flotation samples from the Körös Regional Archaeological Project explores the densities and concentrations of artifacts at two Early Copper Age Sites in order to yield some understanding of the everyday lives of the past inhabitants. Water flotation of soil samples recovers not only macrobotanical remains, but also other artifacts too small to be

recovered by other methods. Through the examination of the presence and spatial distribution of materials recovered, it is possible to identify potential activity areas as well as cultural practices. This type of analysis can also aid in the identification of currently unknown site structures.

**Gutierrez, Gerardo (CIESAS), Konig, Viola (Ethnologische Museum zu Berlin) and Pye, Mary E. (NWAf, BYU)**

[236] *Understanding the Aztec Tributary System and Relationship with the Mixtec-Tlapanec Kingdom of Tlapa: Codex Humboldt Fragment 1*

In 1808, Baron Alexander Von Humboldt published a small catalog of Mexican pictorial codices that he collected in Mexico and took to Europe. Among them was an incomplete tribute document depicting the yearly payment made by the Mixtec-Tlapanec kingdom of Tlapa to Mexico-Tenochtitlan. In 1942, in the Pacific coast village of Azoyú, Guerrero, the missing portion of this document was located. Here, we will analyze the development of this tributary system over a period of 36 years (1486-1521) and observe the changing relationship and political strategies between the Mixtec-Tlapanec kingdom and the Aztec of Tenochtitlan.

**Gutierrez, Maria Eliza (DEAS, INAH, Mexico, DF) and Correa, Ethel (DEAS, INAH, Mexico, DF)**

[56] *Balance y Perspectivas de los Estudios Sobre Afrodescendientes en México*

Durante las últimas décadas se han realizado importantes investigaciones sobre la población de origen africano en México. Centrados en la época colonial, estos estudios han destacado la participación de este grupo en la vida económica, social y cultural de México. También se analiza la situación de los afrodescendientes que todavía presentan rasgos fenotípicos y culturales en comunidades de Veracruz, la Costa Chica de Oaxaca y Guerrero. Esta ponencia expone los estudios hasta ahora realizados y los retos que presentan las futuras investigaciones en los campos de la historia y la antropología.

**Gutiérrez, Madeliz (Universidad Nacional Autónoma de México) and Rodríguez, Jorge (Universidad Complutense de Madrid)**

[166] *El Uso de la Categoría Estilo en Puerto Rico: Hacia una Revaloración del Concepto y la Reestructuración del Esquema Analítico*

El ensayo aborda la noción del concepto estilo en la disciplina, el manejo del mismo en el quehacer arqueológico isleño y los problemas teóricos adscritos a éste bajo el esquema analítico. Finalmente exhorta a la evaluación detallada del modelo rousiano, la estandarización semántica de las categorías que se manejen en el mismo, el reanálisis de las colecciones que representan los estilos de PR y la publicación de las investigaciones dirigidas a tales efectos.

**Gutiérrez, Madeliz [161] see Chiclana, Ivette**

**Gutiérrez Calvache, Divaldo [112] see Fernández-Ortega, Racso**

**Guzman, Ana Fabiola (Subdirección de Laboratorios y Apoyo Académico, INAH y Escuela Nacional de Ciencias Biológicas, IPN)**

[144] *Análisis Arqueoictiológico de dos Sitios de la Costa Pacífica Mexicana*

Se estudiaron los restos de peces de los sitios arqueológicos Huatabampo, Sonora, y San Felipe Aztatán, Nayarit, en la costa pacífica mexicana, para establecer las especies utilizadas y entender el ambiente en que se desarrollaron ambas comunidades humanas. Se identificaron 32 taxa que, en general, se distribuyen en las áreas estudiadas. Previo al Posclásico, en Huatabampo fueron explotados ambientes marinos y estuarinos próximos al mar, ambientes desaparecidos del sitio. En San Felipe Aztatán (Posclásico), los peces indican la explotación de la parte interna de un estuario o de una laguna costera, ambiente que prevalece en la zona.

**Guzman, Martha [68] see Lopez-Hurtado, Enrique**

**Gyucha, Attila (Békés County Museum, Hungary), Parkinson, William (Florida State University) and Yerkes, Richard (Ohio State University)**

[153] *Neolithic and Copper Age Social Organization in the Körös River Valley: Previous Research*

Due to the richness of its archaeological record, the Körös River Valley in southeastern Hungary has been the focus of prehistorians working in central and eastern Europe since World War II. This paper discusses the previous work that has been carried out in the region, with particular

attention to how that research has influenced our understanding of Neolithic and Copper Age social organization.

**Gyucha, Attila [153]** *see Yerkes, Richard*; **[153]** *see Parkinson, William*

**Haas, Jonathan (The Field Museum), Advincula, Mario (Proyecto Arqueologico Norte Chico) and Creamer, Winifred (Northern Illinois University)**

[207] *Why Do People Build Monuments: The Platform Mounds of the Late Archaic Norte Chico*  
The Norte Chico region witnessed an early florescence of mound construction at more than 30 Late Archaic (3000 to 1800 BC) sites in an area of only 1800 sq km. Each of these sites has from 1 to 7 mounds ranging from 3000 to 100,000 cu m in volume. In looking at the emergence of this complex cultural system, a critical question is how and why these mounds were constructed over many generations. This paper will examine evidence for the scale of labor involved in mound construction and for (or against) centralized organization of labor.

**Haas, Jonathan [168]** *see Creamer, Winifred*

**Haas, Wm. Randy (Western Mapping Company), Holmlund, James (Western Mapping Company) and Nicoli, Joseph (Western Mapping Company)**

[62] *3D Models in a 2D World: The Benefits of Adding a Third Dimension to Architectural Documentation*

3D models of prehistoric architecture offer a baseline dataset from which to accurately derive formal and spatial architectural data. Analysts and resource managers can accurately derive metric, geometric, and volumetric data directly from the models. Digital imagery can be rectified to 3D models, allowing analysts to accurately map small-scale architectural features. Rigorous survey and adjustment methods can be used to accurately georeference the models for inclusion in geographic information systems. We present several examples of 3D architectural models and instantiate selected uses of the models with applications in digital cartography, formal analyses, and geospatial data management.

**Habicht-Mauche, Judith A. (University of California, Santa Cruz), Mack, Steven R. (Southwest Archaeological Consultants and University of New Mexico) and Sunseri, Jun Ueno (University of California, Santa Cruz)**

[103] *Incised Pottery from the Northeastern Pueblo Periphery: Technology, Dating, and Implications for Taos Valley Pueblo Origins*

Local and imported remains of incised gray ware pottery have been recovered from Developmental Period (AD 850-1050) sites located on the eastern side of the Sangre de Cristo Mountains on the Park Plateau, near Raton, New Mexico. This pottery reflects strong ties to early Valdez Phase sites in the Taos Valley and to Sopris Phase sites in the Trinidad area of southeastern Colorado. We present new data on the technology and dating of incised pottery from the Northeastern Pueblo periphery and discuss its implications for understanding the complex origins of the late prehistoric/historic Pueblo populations of the Taos Valley.

**Hackenberger, Steven (Central Washington University) and Gabany-Guerrero, Tricia (University of Connecticut)**

[65] *Between the Volcanoes in Highland Michoacán: New Evidence for Sequential Occupation*  
An Archaic burial (5000-6000 BP) is documented within the context of stratigraphy developed within La Alberca volcanic caldera. Strong inference suggests association between rockshelter burial and red paintings. A massive tephra unit (circa 7000 years ago) underlays the burial. An extensive Postclassic ceremonial center is located at the base of two cinder cones adjacent to the La Alberca caldera. Settlement areas are underlain by an approximately 1200 year old tephra and capped by Parícutin ash. Ceramics and obsidian are recovered from areas of elite residence in and around a possible raised plaza with over 12 structures.

**Hadley, Alison (University of Kentucky)**

[43] *Use of a Laser Level to Quantify Mining and Torch Debris in Mammoth Cave National Park, Kentucky*

An ongoing survey of Mammoth Cave systematically documented Early Woodland (3,000-2,200 years BP) artifacts and features associated with mining and exploration. Mining and torch debris were so numerous, however, they were not systematically quantified. Using a torpedo laser level with a magnetic beam spreader, I systematically sampled 4.5 km of passage to determine the scale and pattern of mining activities. Torch debris, which was ubiquitous in the cave, was also

quantified as an additional means of assessing prehistoric activity in the survey area. These data provide insight into the role of minerals and mining in Early Woodland life.

**Haecker, Charles (U.S. National Park Service)**

[130] *Building and Renewing National Historic Landmarks Partnerships with Native American Tribes of the American Southwest*

National Historic Landmark status has been awarded to only eight archaeological resources in the Southwest that have Native American tribes as their stewards. The sharp increase in site vandalism, combined with limited tribal resources relegated to combat it, has jeopardized the integrity of these places. In response, the NHL Program-Intermountain Region is developing overlapping partnerships that include various tribes, neighboring federal and state land managing agencies, and Friends groups, with infusions of NHL-provided technical assistance and small-grants funding.

**Haeusler, Werner [4]** see *Wagner, Ursel*

**Hageman, Jon (Northeastern Illinois University), Houk, Brett (SWCA Environmental Consultants) and Bria, Rebecca (Vanderbilt University)**

[120] *The Rediscovery of and Initial Investigations at Say Ka, Belize*

The site of Say Ka was mapped in 1990. It included several structures greater than 6m in height, with the tallest reported around 12m. Say Ka was reportedly located about 4km southwest of La Milpa, but subsequent attempts to relocate it were unsuccessful until 2000. Excavations in 2004 and 2005 identified individual structures and periods of occupation. Initial results suggest a Late Preclassic through Late Classic occupation. Located within the "suburban" sphere of La Milpa, the site is a promising avenue to investigate political history and social, economic, and political integration in the area.

**Hageman, Jon [109]** see *Goldstein, David J.*

**Hailey, Tommy (Northwestern State University) and Ball, Elizabeth (Northwestern State University)**

[132] *The Sandiferd Cemetery Revisited: Locating Unmarked Burials Using a Digital Soil Compaction Meter*

The Sandiferd Cemetery, in rural northern Louisiana, was in use as a family cemetery from 1862 until 1919, after which it was abandoned. The locations of burials, some marked and others visible only in the form of a depression, continued to be evident until 1992, when logging activities on the property effectively erased surface indications of the unmarked graves. Assuming that the soil in the grave shafts would not be as compact as the undisturbed soil surrounding them, a close-interval survey was conducted using a digital soil compaction meter (penetrometer) to rediscover and map the locations of the unmarked graves.

**Haines, Helen R. (TUARC)**

[119] *To See the World in a Shard of Glass: The Wider Implications of the Ancient Maya Obsidian Trade*

Obsidian is one of the most ubiquitous and easily traceable long-distance exchange goods in the ancient Maya world. Yet, because of its pluralistic social value (utilitarian and ritual), the networks through which this material was exchanged are among the most difficult to identify. This situation has been compounded by a research approach in which obsidian from all geological sources is considered equal. Based on contextual evidence that suggests the Maya ascribed different values to the various sources of obsidian, this paper will present a new paradigm to explain the means and rationale behind the Formative and Classic period obsidian trade.

**Halbirt, Carl [6]** see *Wallace, Antoinette*

**Haley, Bryan (University of Mississippi) and Wrobel, Gabriel (University of Mississippi)**

[139] *Archaeological Geophysics in Central Belize*

A multi-method geophysical survey was conducted at several Maya sites in conjunction with the Belize Valley Archaeological Reconnaissance program. The goal of the project was to determine the utility of a variety of geophysical techniques, including ground penetrating radar, electrical resistance, and magnetic gradient, for locating buried features in central Belize. Data was collected in the plazas at three sites, Cahal Pech, Pook's Hill, and Xubzulima. In addition, the

Caves Branch Rock Shelter site, which consists of a dense concentration of burials, was targeted. Results indicate that features of possible archaeological significance were delineated using all three techniques.

**Hall, Jerome Lynn (University of San Diego)**

[227] *Boucaniers, Contrabandistas, and Ferias? The Seventeenth-Century Northern European "Pipe Wreck" on Hispaniola's Northern Coast*

Early in the latter half of the seventeenth century, a northern European ship, carrying a large consignment of smoking pipes, foundered on the northern coast of Hispaniola. Comparative material culture from contemporary sites suggests most of its cargoes were for Dutch-American outposts on the eastern seaboard of what is now the United States of America. For nearly two decades, researchers have posited that this shipwreck represents the remains of a vessel that engaged in illicit trade with contrabandistas and boucaniers of the island's northern coast. Recent investigations in the Archivos de las Indias in Sevilla, however, suggest an alternative explanation.

**Hall, Jon [72]** *see Freeman, Andrea*

**Hall, Robert (University of Illinois at Chicago)**

[241] *Contradictions as a Source of Historical Perspective: Examples from the Symbolism of Sacred Trees and Poles*

When using historical ethnographies and the comparative method it can be gratifying to find close correspondences of ritual elements between the cultures being studied. Contradictions, on the other hand, can sometimes also be useful, although such contradictions may require broad interregional comparisons and deep-time perspectives for their resolution. Examples discussed or referenced include the sacred pole of the Omahas, the bear sacrifice of the Munsee-Mahicans, the Iroquois Tree of Light, and the ceiba as the World Tree in southern Mesoamerican cosmology.

**Hall, Robert Leonard (University of Illinois at Chicago) [205]** *Discussant*

**Hall, Theodor J. [6]** *see Steiss, Deborah*

**Hallgrímsson, Benedikt (University of Calgary) and O'Donnabhain, Barra (University College, Cork, Ireland)**

[82] *Non-Metric Traits and the Assessment of Biological Distance*

The use of non-metric and morphometric data as proxies for genetic variation assumes that variation in morphological data closely reflects similar measures obtained from genetic data. We examine this question through integration in non-metric trait data in a large geographically diverse human sample, an analysis of the underlying developmental biology, and a comparison of mean divergence scores for non-metric trait and mtDNA sequence data in a small archaeologically retrieved sample. We conclude that non-metric trait data do effectively measure genetic distance and variation. However, their use and the choice of methods must recognize the differences between genetic and morphological data.

**Halperin, Christina T. (University of California, Riverside)**

[147] *What Does Politics Have to Do with It?: Figurines as Bearers of and Burdens in Late Classic Maya Politics*

Mesoamerican scholars often portray clay figurines as antithetical to politics and the affairs of the state. Such conceptions arise, in part, from the domestic recovery contexts of figurines and their depictions of humans and supernatural beings that are rarely portrayed in monumental media. This paper argues for a closer link between figurines and state politics by exploring ways in which Late Classic Maya figurines served as both carriers of and alternatives to political dispositions and strategies. Particular emphasis is placed on figurine symbolism, technology, and context from the Maya site of Motul de San José for case examples.

**Halsey, John (Michigan Historical Center) [229]** *Discussant*

**Halwas, Sara [96]** *see Deal, Michael*

**Hamell, George [241]** *see Fox, William*



**Hamilton, Conard (Tulane University)****[216] *Agency and the Indigenous Response to Conquest***

The indigenous response to conquest is difficult to approach archaeologically. Recently, agency theory has been used to analyze the complexity of the rapid transformation of New and Old world societies during the early colonial period. This paper applies agency theory to interpretations of archaeological remains of indigenous houses at Ciudad Vieja, El Salvador (1528-1545). The lack of indigenous historical documents representing the multiethnic residents of this briefly occupied colonial center presents both opportunities and challenges to agency-centered interpretations. Both the lessons learned and the data collected at Ciudad Vieja have implications for contact and colonial encounters in Mesoamerica and elsewhere.

**Hamilton, Nathan (University of Southern Maine) and Pollock, Stephen (University of Southern Maine)****[166] *Technical Vessel Analysis for Precolumbian Ceramics from Cadet and Desmarreaux Sites, Northwest Haiti***

Detailed petrographic and x-ray diffraction analysis examined numerous ceramic vessels recovered from the 1959-1963 Paul Barker excavations in northwestern Haiti. Excavations were undertaken at one cave site with burials on the Ile de la Tortue and five open air coastal or near flood plain sites near Les Trios Rivières and Port-de-Paix. The excavations were conducted in conjunction with a working proposal for an overseas training program that later influenced the development of Peace Corps efforts in Haiti. Technical ceramic studies selected lots from ca. 200 decorated vessels recovered at the Cadet and Desmarreaux site excavations for analysis. Petrographic thin section analysis and powder x-ray diffraction studies examined vessel composition and potentials for geological sourcing of vessel paste and temper. The precolumbian archaeological investigations by Barker are summarized, including the nature and character of the artifact assemblages, together with the results of the technical ceramic studies.

**Hamilton, Nathan [148] see Bampton, Matthew****Hanks, Bryan (University of Pittsburgh)****[211] *Constructing the Warrior - Death, Memory and Warfare***

There has been an increasing interest in exploring the role of late prehistoric warriors within the Eurasian steppe. While many of these works have been concerned with the rank and prestige of social organization and authority less attention has focused on the active nature of agency, dynamic patterns of social identity, and their representation in the mortuary domain. This paper will examine current intellectual and methodological problems surrounding the interpretation of Iron Age mortuary remains in the central Eurasian steppe region and offer a critical evaluation concerning the social construction of warriors and their impact on Iron Age steppe societies.

**Hanley, Robert (Panamerican Consultants, Inc.), Cinquino, Michael (Panamerican Consultants, Inc.) and Schieppati, Frank (Panamerican Consultants, Inc.)****[35] *Artifact Distribution Signatures of Resource Procurement Areas***

This paper discusses results from archaeological surveys covering over 1,400 acres within a six-square-mile area in Central New York. This low-lying study area is between archaeologically sensitive areas including New York's Finger Lake Region to the south and drumlin fields and Lake Ontario to the north. The identification of resource procurement areas using artifact type and distribution is the focus. The relationship of resource procurement areas to settlement patterns in the region will also be presented, including an examination of stray/isolated finds in a broad context of land use spanning thousands of years.

**Hanna, Jonathan (Montclair State University), Davis, Peter F. (Montclair State University) and Walling, Stanley (University of Texas at Austin)****[246] *Ancient Residential Terracing at Chawak But'o'ob, Belize***

Dry-slope contour terraces (also known as hill-slope and bench terraces) are a commonly encountered landscape modification in the Maya lowlands that are traditionally associated with Prehispanic agriculture, water management, and soil conservation. Archaeological survey and excavation at the densely-occupied, Late Classic-period (AD 600-850) escarpment site of Chawak But'o'ob in northwestern Belize have documented extensive dry-slope contour terracing that supports relic domestic platforms and multi-roomed foundation braces. The stacked residential terraces of this commoner community have parallels in Mesoamerica outside the Maya area and expand our understanding of the functional variability of Maya terracing.

**Hanna, Jonathan [246]** *see Davis, Peter F.*

**Hanratty, Colleen (Southern Methodist University), Guderjan, Thomas (Texas Christian University), Wester, Carlos (Museo Bruning), Uceda, Santiago (Universidad Nacional de Trujillo) and Castillo, Luis Jaime (Pontificia Universidad Catolica del Peru)**

[115] *Revisiting Pampa Grande*

The origins of urban life at Pampa Grande in the upper Lambeyeque Valley of Peru have been seen as a result of migration of Moche peoples from closer to the coast. Alternatively, this ethnically diverse urban zone grew from local populations prior to the Late Moche migration. New fieldwork is designed to re-examine the causes of population agglomeration at Pampa Grande. Re-mapping and excavations are aimed at better understanding the chronological development of elite residential compounds and the site in general. This paper summarizes the approach of the current project and presents some of the data from the 2005 fieldwork.

**Hanselka, J. Kevin (Washington University in St. Louis)**

[109] *Revisiting Ocampo: Land Use and Plant Utilization in Southwestern Tamaulipas, Mexico*

For five decades, data from three caves near Ocampo, Tamaulipas, Mexico, have influenced leading models for the forager-farmer transition in Mesoamerica. The rich diversity now recognized among prehistoric mixed economies in Mexico calls for further clarification of various aspects of human adaptation and settlement in this area. This paper presents preliminary results of an archaeological survey within a 3,600 ha area around the Ocampo caves, illuminating the range of settlement types and land use patterns among low-level food producers and early agriculturalists in this context. A reconsideration of curated plant assemblages obtained from the caves provides supplemental subsistence information.

**Hansell, Patricia (Temple University)**

[102] *Fifty Years of Archaeology in Panama: An Overview*

In this poster, I outline the theoretical perspectives, questions asked, and the results derived from the implementation of specific archaeological projects carried out in Panama over the past 50+ years. At least three phases are recognizable; each is a reflection of what is going on in the larger archaeological community of North and South America and/or in the political realm of Panama itself. The goal of this presentation is to contextualize those posters which are a part of this symposium.

**Hansen, Richard D. (Idaho State University)**

[208] *The Beginning of the End: Conspicuous Consumption and Environmental Impact of the Preclassic Lowland Maya*

Investigations of the Mirador Basin of northern Guatemala have demonstrated a major Maya occupation of the region during the Middle and Late Preclassic periods. The massive architectural complexes of numerous major sites and associated experimental replications suggest that the investment of labor and resource in stone, mortar, and lime for the construction systems had profound environmental, economic, and political impacts near the close of the Late Preclassic Period. The excesses and exorbitant costs contributed to societal and environmental stresses and ultimately were some of the primary factors for the abandonment of the major Preclassic sites of the Basin.

**Hantman, Jeffrey L. (University of Virginia)**

[245] *Historic Plowzone Collections and Their Cultural Meanings in Native American History*

The study of two large plowzone collections from Virginia provides powerful new insights into the region's Native American history. One is from the Blue Ridge Mountains while the other is from the James River floodplain; both are part of Monacan territory. Over 40,000 artifacts have been cataloged in an effort to return them to the Monacan Ancestral Museum. The abundance of diagnostic artifacts from the contact period as well as other ritual and special-purpose objects, extremely rare in excavated sites, lend important new data to our understanding of Monacan and Chesapeake regional history in the contact period.

**Haradon, Catherine (CASHP/The George Washington University) and Tryon, Christian (George Washington University/Smithsonian Institution)**

[59] *Ecological Context for the Acheulian to Middle Stone Age Transition*

The African archaeological record from ~300,000-100,000 years ago displays significant behavioral changes recognized as the Acheulian to MSA transition. The extent to which the environment influenced these behavioral changes is examined by looking at temporal and

geographical patterns in the broader ecosystem. We explore speciation and dispersal events in faunal communities using first and last appearances of fauna from African Acheulian and MSA sites. This is compared with behavioral and biological changes within the *Homo* lineage to determine the extent to which the timing and nature of human adaptations diverged from those of the larger faunal community.

**Harbison, Jeffrey (URS Corporation) and Dickau, Ruth (Temple University)**

[194] *Cooked Corn From Carbonized Crust: Starch Grain Analysis from Food Residue on Ceramic Sherds, Shoemaker's Ferry Site, New Jersey*

Late Woodland Pahaquarra phase ceramics recovered from the Shoemakers Ferry site along the Delaware River were analyzed for microbotanical remains using starch analysis. Carbonized residue from the inner surfaces of sherds yielded numerous preserved starch grains. The starch assemblage was dominated by maize (*Zea mays*), which correlates with macrobotanical data from the site. Based on current archaeobotanical evidence, maize arrived in the region by ca. 1000 AD. The vessels were used to cook other plant foods as well, including possible species of legume. These results provide a link between cultivated plants and ceramic artifacts and carry implications of vessel use.

**Hard, Robert (University of Texas at San Antonio) and Munoz, Cynthia (University of Texas at San Antonio)**

[137] *Frames of Reference for Prehistoric Aquatic Resource Intensification*

Binford's Intensification Model makes particular predictions about the relative timing and role of aquatic resources as an element of the process of resource intensification. Specifically, the model suggests that aquatic resources will be targeted for intensification prior to plant intensification, if such resources are available. We examine archaeological and stable isotope data to evaluate these expectations for a portion of North America. For example, an unexpected level of aquatic use during the Archaic period on the Texas Gulf Coastal Plain appears to be consistent with the Intensification Model.

**Hard, Robert J. [27] see Roney, John**

**Hardy, Jessica (University of Mississippi), Palkovich, Ann (George Mason University) and Wrobel, Gabriel (University of Mississippi)**

[141] *Analysis of Burial Collections from Caesarea, Israel*

Excavations during the 1980s at Caesarea, Israel revealed a series of human remains consisting of Bedouin, Roman, and Crusader individuals. A detailed inventory and examination of the collection, including estimations of the age, sex, and stature of each individual provides a comparative baseline to document changes over time of the inhabitants at Caesarea. Such information can widen our ability to understand the relationships within and between these vastly different ethnic populations.

**Hardy, Meredith (National Park Service)**

[176] *Section 110 Survey at Buck Island and Salt River Bay, St. Croix, U.S. Virgin Islands*

The National Park Service's (NPS) Systemwide Archeological Inventory Program (SAIP) promotes Section 110 of the National Historic Preservation Act, by funding systematic inventories and evaluations of archeological resources on NPS lands and recommending strategies for the protection, preservation, management, and interpretation of these resources. The Regionwide Archeological Survey Program (RASP) Southeast Archeological Center's (SEAC) implementation of SAIP for parks in the Southeast Region. This paper will highlight the results of RASP surveys on two multicomponent parks units on St. Croix, U.S. Virgin Islands: Buck Island National Monument and Salt River Bay National Historic Site and Ecological Preserve.

**Hare, Timothy (IRAPP, Morehead State University), Masson, Marilyn (University at Albany) and Peraza Lope, Carlos (Centro INAH – Yucatan)**

[49] *The Spatial and Social Organization of the Postclassic Maya City of Mayapan*

Mayapan is one of the most urban sites in ancient Mesoamerica, yet efforts to determine its organizational principles have thus far been unsuccessful. We analyze the distribution of house types, non-residential features, and artifacts from hundreds of contexts across the city to begin cracking the code of this city's urban form. Our efforts concentrate on aspects of neighborhood composition, including: distinctions according to social class or ethnic group, the presence or absence of elite supervisors in commoner barrios, location of key outlying ritual features, and major roads or pathways indicated by stone walls or alignments of key buildings.

Hare, Timothy S. [177] *see* Masson, Marilyn A.

**Hargrave, Eve (Illinois Transportation Archaeological Research Program) and Hedman, Kristin (Illinois Transportation Archaeological Research Program)**

[104] *Ritual Use of Human Bone in the American Midwest*

Isolated, culturally modified, human remains have been recovered from various late prehistoric contexts throughout the Midwestern United States. This poster focuses on examples of modified bone from several different late prehistoric contexts in Illinois including the American Bottom and northeastern Illinois. Characteristics such as drilled holes, incised designs, use polish, and cord impressions on the outer bone surface indicate the modification was not a result dismemberment associated with mortuary processing. A discussion will include interpretations of possible ritual or ornamental function of bone modification within the broader cultural context of the time.

**Hargrave, Michael (ERDC CERL), Fennell, Christopher (University of Illinois-Urbana), Martin, Terrance (Illinois State Museum) and Shackel, Paul (University of Maryland)**

[5] *Geophysical Investigations at New Philadelphia, an Integrated Town on the Illinois Frontier*

Founded in 1836 by an entrepreneurial freed slave, New Philadelphia was occupied by blacks and whites into the 20th century. Electrical resistance and magnetic gradient surveys were conducted in support of the 2004-2005 NSF-funded New Philadelphia field schools. Goals were to identify productive locations for hand excavation, introduce students to geophysics, and produce a map of subsurface deposits to help visualize and interpret the site. More than 40 anomalies were recommended for investigation. Features associated with five of the eight anomalies investigated thus far include two large sub-floor pits, two substantial cellars, and the remains of a burned structure.

**Harmand, Sonia (Laboratoire de Préhistoire et Technologie, Université Paris X)**

[17] *Oldowan Intersite Diversity in the Nachukul Formation, West Turkana, Kenya: Techno-economic Comparative Analysis*

Recent Investigations of early hominin lithic production have revealed spatial and temporal variability among African Oldowan occurrences. A detailed comparative techno-economic analysis of sites from the Nachukul Formation (West Turkana, Kenya) documents the evolution and change in patterns of raw material procurement and management between 2.34 to 1.6 myr within a well-circumscribed area. The implemented methodology reveals intersite diversity stemming from techno-economic patterns related to raw material properties as well as their manner of exploitation. Models of ranging patterns of Oldowan hominins are examined alongside these new insights of early technological and cognitive developments.

**Harper, Cheryl (Washington State University) and Andrefsky, Jr., William (Washington State University)**

[133] *Exploring the Dart and Arrow Dilemma: Retouch Indices as Functional Determinants*

Measuring retouch location and intensity on hafted bifaces is shown to be an effective technique to assess artifact function. Unlike other areas of North America where dart technology is replaced by arrow technology, Coalition Period occupations on the Pajarito Plateau of New Mexico contain both hafted biface forms used simultaneously. A stylistic analysis of dart points shows that hafted biface forms found in Coalition Period contexts were recycled from Middle and Late Archaic surface scatters. Furthermore, retouch location and intensity show that Coalition Period dart points were used for cutting and sawing activities and not as projectile technology.

**Harper, Nathan K. (University of Nevada, Las Vegas) and Parks, Danielle (Brock University)**

[10] *The Bioarchaeology of City Planning and Public Health at Late Roman Kourion*

Scheidel describes life in the Roman Empire as "nastier and probably shorter than many historians are likely to appreciate" (2003:158). Roman administrations mitigated negative health effects with strict guidelines governing city planning and public health. Roman Cyprus was a political backwater and suffered frequent earthquakes; these factors may have impacted public works maintenance, possibly to the detriment of population health. These effects are examined through a study of non-specific indicators of stress in the Late Roman Kourion-Amathous Gate Cemetery population (n=121) (Parks et al. 2000). Results showing few stress indicators are discussed relative to contemporary populations under imperial governance.

**Harpole, Thane H. [245] *see* Brown, David A.**

**Harrill, Arthur (Truman State University)**[137] *Population Density Thresholds in the Design of Houses among Hunter-Gatherers*

The structure of houses among hunter-gatherers is conditioned by environmental factors, subsistence specialty, and population density. By controlling for environment and subsistence, archaeologists can use the remains of houses to infer population density. Using ethnographic data from Binford's 339 hunter-gatherer cases, a diagnostic key has been constructed. Cases were grouped by effective temperature, and these groups were subdivided and searched for density thresholds relating to structure shape, roofing material, wall material, roof shape, and floor level. For a given house type in a given environment, these thresholds reduce the range of likely densities.

**Harris, Cory (University of Arizona)**[134] *Organizational Change and Intellectual Production: A Case Study from Southern Arizona*

Sociologists of science and many historians of archaeology have long argued that the social context of scientific activity significantly shapes the intellectual production of a discipline. From this perspective, the tremendous organizational and institutional transformations attendant with the rise of CRM in the United States should be coupled with substantial change in the character of intellectual discussions. Using the specific case study of Hohokam archaeology—a specialty deeply impacted by CRM—this paper explores the dynamic relationships between organization and archaeological discourse through a diachronic examination of author co-citation and citation-context patterns evident in the region's literature.

**Harris, John W. K. (Rutgers University)** [17] *Discussant*; [143] *see Greene, Mary K.*

**Harris, Trevor (West Virginia University), Bergeron, Sue (West Virginia University) and Rouse, Jesse (West Virginia University)**[101] *Global Archaeology, GIS and Virtual Reality*

GIS, the Internet, GPS, and global database systems have created the basis of a holistic framework within which to explore and analyze archaeological site locations. With the integration of geospatial technologies, geo-visualization, spatial multimedia, and the Internet a global portrayal of archaeology is fast becoming a feasible reality. Through the use of dynamic geovisualization and geospatial technologies this presentation explores the potential for jumping scale between the local and global and providing for a global archaeological perspective.

**Harris, Trevor** [101] *see Rouse, Jesse*; [101] *see Bergeron, Susan*

**Harrison, Peter D. (Maxwell Museum, UNM)**[164] *The Origins of the Connection*

A program of Maya studies was introduced to Trent University in 1966 upon my joining of the staff with materials from Tikal in Guatemala. These materials were used in course and laboratory studies. A new Maya program based out of Trent surveyed in the Mexican state of Quintana Roo in 1970-74, involving the participation of Trent students in the field for the first time. This program in turn led to the Pulltrouser Swamp Project in Orange Walk Town in Belize. My participation at Trent had ended by this time but the historical connection with Belize has been pursued by others ever since.

**Harrison III, James (Westland Resources, Inc.)**[196] *A New Chronological Investigation of Pecos River Style Rock Art, Texas Archaic*

A recent investigation of Pecos, River Style rock art (ca. 4250-2000 BP) has revealed previously unknown chronological information that is helping unlock the development of this art form. Multivariate statistical analyses such as principal components analysis, hierarchical cluster analysis, and multidimensional scaling, were used to analyze a matrix of redundant attributes from the art. Based on this work a new seriation is presented tracing the development of this important form of Archaic Period mural art.

**Harrison-Buck, Eleanor** [103] *see Boteler Mock, Shirley*

**Hart, Daniel (e2M, Inc.) and Hokanson, Jeffrey (e2M, Inc.)**[134] *Archaeological Monitoring: Method or Madness?*

Archaeologists often rely on site monitoring at construction projects to identify and protect cultural resources. However, site monitoring may fail to protect cultural properties and may not

adequately assess the cultural resources present at a construction project. We surveyed several State Historic Preservation Offices (SHPOs) on the effectiveness and appropriateness of site monitoring relative to other sampling methods. Most SHPOs agreed that monitoring is not a viable primary method for the identification and protection of cultural properties. We use the survey results to generate criteria that may help archaeologist better evaluate when and where monitoring is most appropriate.

**Hart, John P. (New York State Museum)**

[96] *Ten Years Later: The Three Sisters Revisited*

A decade ago it was generally accepted that maize-bean-squash (The Three Sisters) agriculture was in place in New York by AD 1000. The three crops were thought to have been adopted as a unit or in succession over a short period of time. Research over the past ten years has substantially altered the known history of these crops. In this paper I review current evidence for the history of the crops in New York and discuss the implications of this evidence for our understanding of agricultural evolution in the Northeast.

**Hart, John [194]** *see Lovis, William*

**Hart, Siobhan (University of Massachusetts Amherst), Kasper, Kimberly (University of Massachusetts Amherst) and Thompson, William (University of Massachusetts Amherst)**

[5] *Lost and Found: Archaeological Methods & A Seventeenth Century Pit Feature in New England*

For New England Native sites, the presence of certain cultural materials can mean the difference between acknowledging the presence of Native peoples on the eve of contact and making them invisible in the early colonial period. This poster presents data from a seventeenth century site in western Massachusetts to show how modifying methods for excavating pit features allows one to see "small things," like trade beads and maize kernels, which are substantial chronological and cultural markers. Recovery of these kinds of artifacts establishes the continued presence of Native peoples after contact and reveals continuities and transformations in Native material culture.

**Hartfield, Paul [6]** *see Peacock, Evan*

**Hartless Greer, Melissa [196]** *see Greer, Mavis*

**Hartnett, Alexandra (University of Chicago)**

[227] *Smuggling as Family Business: An Example from Post-Medieval Galway, Ireland*

It has long been a challenge of archaeology to tell the difference between legitimate and illicit trade. In this case, historical texts and material culture reveal the long-overlooked unsanctioned trade of heavily taxed commodities, particularly tobacco, which was undertaken by elite merchant families in seventeenth century Galway, on the west coast of Ireland. The evidence here represents a tacit resistance to colonial dictates that may reflect how colonial policies shaped local practices even as those same practices impacted colonial action and reaction. It is only through the juxtaposition of both the archaeological and historical records that this discrepancy has come to light and may hint at how similar instances of smuggling can be found, elsewhere.

**Haskell, David (University of Florida)**

[193] *History, Ideology, and Problematic Assumptions in the Ethnohistoric Inquiry into the Development of the Tarascan State*

The Relación de Michoacán has emerged as the preeminent source for the study of the Tarascan State. Whether alone or as the basis for interpreting the archaeological record, literalist interpretations of the document have guided research of the development of the Tarascan State. I argue that the literalist position is unfounded, however. Furthermore, an alternative interpretation is proposed in which the "historical" details contained within the document can be explained through the cultural logic of the indigenous conception of hierarchy. This position can provide alternate avenues for the archaeological investigation of the development of the Tarascan State.

**Hasso, Jennifer [5]** *see Mayfield, Tracie*

**Hastorf, Christine A. (University of California, Berkeley)**

[7] *Sea-changes in Stable Communities: What Do the Changes in the Foodways at Chiripa and Çatalhöyük Mean?*

Based on long-term work at two early villages, Çatalhöyük in Turkey and Chiripa in Bolivia, this

presentation investigates the juxtaposition of the long-lived settlement with the evidence for changing food systems. The often subtle shifts in food stuffs, cooking procedures, placement of cooking and processing can reflect social changes in society that are often missed when we chart larger scales such as settlement patterns, architecture, site size and exchange. Both sites exist successfully for almost 1000 years yet 500 years or so into their existence, there is a substantial shift in cooking and food presentation. What do these changes reflect?

[54] see Roddick, Andrew; [178] see Moore, Katherine M.; [192] Discussant

Hathaway, Allen [138] see Boulanger, Matthew

**Hauser, Mark (De Paul University) and Kelly, Kenneth (University of South Carolina)**

[1] *Colonies without Frontiers: Inter-island Trade in the Eighteenth and Nineteenth Century Caribbean*

The plantation period archaeology of the Caribbean has been marked by island specific analyses with only occasional reference to broader regional interactions between and within islands. These analyses, in part, reflect the presence of laws which regulated the movement of people and commodities within and between the colonies. In this paper we explore the fluid nature of trade and exchange between colonial realms in the eastern Caribbean. Regional archaeological analyses have begun to shed light on the informal and formal mechanisms through which these regulations were circumvented and focus attention on islands thought to be peripheral.

**Hauser, Mark (DePaul University)**

[52] *Locating Enslaved Craft Production: Chemical Analysis of Eighteenth Century Jamaican Pottery*

Locally produced coarse earthenware, in Jamaica identified as yabbas, can be a major component of archaeological assemblages associated with enslaved life in the eighteenth and nineteenth century Caribbean. While much investigation has gone into the stylistic attribute of this particular type of ceramic, little analysis has been completed on understanding the production and distribution of this pottery. Building on petrographic analysis completed by the author, this paper presents results from neutron activation analysis and its significance in understanding the scale and scope of Jamaican pottery production and distribution.

[52] see Kelly, Kenneth; [11] Discussant

**Haviser, Jay (Netherlands Antilles)**

[126] *Distinguishing Authentic Prehistoric from Historical Replication Rock Art Features at Prehistoric Sites*

Due to the historical fact of modern and/or historical graffiti at many prehistoric rock art sites in the Caribbean, the intention of this paper is to present certain potential methods for distinguishing authentic prehistoric paintings from those later historical markings. The stimulus for this investigation, relates to the identification of a series of intentional replications of prehistoric designs in the historical period, which in some cases has led to various misinterpretations of the archaeological record. Prehistoric rock art sites on the island of Bonaire, Netherlands Antilles were used for this case study.

**Hawken, James R. (University of South Florida) and Davis-Salazar, Karla L. (University of South Florida)**

[234] *Socio-natural Landscapes and Community Formation at Palmarejo, Honduras*

Communities have traditionally been viewed as spatially bounded social units composed of multiple households whose inhabitants are integrated by shared resources and a common sense of identity. While studying resources and identity is useful for archaeological study because of their material correlates, such views of community ultimately fail to acknowledge the dynamic interaction between cultural and environmental forces in shaping and shifting those arrangements over time. This paper examines settlement and geoarchaeological data from the Palmarejo region of northwest Honduras with the aim of modeling the long-term process of community formation at the intersection of social and natural landscapes.

Hawrylchak, Shana [246] see Heron-Matthews, Leah

**Haws, Jonathan (University of Louisville)**

[199] *Getting Used To It: Early Holocene Climate, Environment and Human Adaptation in Central Portugal*

The Early Holocene is generally considered a period of climatic amelioration offering new

opportunities for human foraging groups. The creation of coastal estuaries by rising sea level was thought to enable a new settlement and subsistence focus on aquatic resources. Recent research on oceanic circulation and coastal upwelling provides a basis for an alternative model in which the Early Holocene is actually a potentially difficult time to make a living. The archaeological record of the Early Holocene contrasts markedly with the preceding Late Glacial. This paper uses geological and archaeological data to evaluate these two models.

**Haws, Jonathan [204]** *see Lee, Wayne*

**Hayashide, Frances M. (Pennsylvania State University) [219]** *Discussant*

**Hayden, Lauren R. [103]** *see Semon, Anna M.*

**Hayes, Katherine Howlett (University of California, Berkeley)**

[186] *Remembering Engendering: An Archaeology at the Intersection of Feminism and Social Identity*

Our ability to query social identity in archaeology stems in large part from the contributions of feminist archaeologists. Our recall of those contributions, however, often is reduced to the exhortation to "see" women, while forgetting the more complex issues of gender identity and disciplinary bias. In this paper I will explore how theories of gender, feminism, and identity change our perspectives of a Late Woodland site in coastal Massachusetts. I would argue that the progress and pitfalls of early archaeologies of gender are relevant lessons in critically reviewing contemporary scholarship on social identity.

**Hayes, Robert [44]** *see Schurr, Mark*

**Hayes, Sue Eileen (Sonoma State University)**

[14] *Estimating Maya Era Population at Yalbac, Belize*

Estimating the population of any Maya site is difficult due to uncertainty in establishing household size and temporal relationships among residential structures. In cases where sites have been significantly altered post-Contact or have not been thoroughly mapped, demographic estimates are even more questionable. Computer simulation of agricultural productivity to determine maximum sustainable population was successfully used to estimate population at Baking Pot, a thoroughly mapped site. This alternative method, which can be applied to all sites with adequate soil and meteorological data, is now being applied to Yalbac, Belize, where mapping beyond the core is unfinished.

**Hayeur Smith, Michele (Carleton University, Rhode Island School of Design)**

[247] *Does One Size Fit All? Towards an Archaeology of Dress and Adornment*

Dress, adornment, and bodily appearance are notoriously difficult to document archaeologically and our approaches are theoretically under-developed. While elements of adornment are frequently recorded and analyzed separately, they are rarely reintegrated into the symbolic systems of bodily attributes to which they once belonged, and through which they conveyed messages of social and cultural identity. Using examples of material culture worn as elements of dress and adornment by aboriginal peoples in the Gulf of Saint Lawrence region, ca. 1400-1800 AD, this paper will discuss and explore opportunities for developing a theory of dress and adornment in archaeology.

**Haynes, C. Vance [72]** *see Anderson, Derek T.*

**Hays-Gilpin, Kelley (Northern Arizona University)**

[205] *Remembering Emergence and Migration in the Southwest Pueblos*

Southwest Pueblos comprise diverse language groups, dual divisions, religious sodalities, and kin groups with distinct histories. All have stories of emergence, migration, convergence at center places, and flexible networks of symbols and meaning for clouds, water, caves, serpents, birds, green stone, maize, colors, directions, and more. Archaeological traces, or "footprints," connect Pueblo ancestors across language groups and ecological niches, and connect Pueblos with far-flung ethnic groups in Mexico and beyond. At the same time, different configurations of iconography and specific histories preserve deliberate differences among the Pueblos, and heterodoxy within Pueblo villages.

[27] *see Webster, Laurie*



**Hayward, Michele (Panamerican Consultants) and Roe, Peter (University of Delaware)**

[126] *The Ultimate Rorschach Test: A History of Rock Art Interpretation in the Greater Antilles*  
Early interpretation of rock art in the Greater Antilles was hampered by diffusionist theories from Mesoamerica and the uncritical adoption of ethnographic analogy from inappropriate culture-geographic areas such as North America and Europe. By the late 1970s and 1980s the rediscovery of the 15th century study of Pane, when coupled with a study of lowland South Amerindian mythology and cosmology, revolutionized the field. The 1990s and 2000s has seen the introduction of modern recording techniques, a first relative chronology via seriation and attention to the context, mutual thematic and structural relationships between petroglyphs and pictographs. Current interest centers on archaeoastronomy, the cultural use of symmetry, and the recapitulation of cosmology.

**Hayward, Michele H [176]** see *Cinquino, Michael A*

**Healan, Dan [173]** see *Cobean, Robert*; [193] see *Hernandez, Christine*

**Healy, Paul [164]** see *Sunahara, Kay*; [164] *Discussant*

**Healy, Paul F. (Trent University), Keenleyside, Anne (Trent University) and Dorst, Marc (Leiden University)**

[132] *Isotope Analysis and Radiocarbon Dating of Prehistoric Human Bone from Manzanilla 1, Cocos Bay, Trinidad*

Manzanilla 1 (San 1) is a shell-midden site located on the east coast of Trinidad. Between 2001-2004, mapping and excavations by archaeologists from Leiden University revealed that 250,000 m<sup>2</sup> site, atop a 4.5 m tall plateau, was largely in tact. Excavations unearthed artifacts (ceramics, lithics, and worked shell), ecofacts, evidence of ancient structures, and features (including burials). This paper reports on carbon and nitrogen isotope analysis of human bone samples derived from two burials, and compares the results to studies from elsewhere in the Caribbean. Observations are made about the diet and subsistence in ancient Trinidad. Radiocarbon determinations on the same bone samples suggest that at least part of the habitation at Manzanilla 1 occurred from AD 1200-1400.

**Heath, Barbara [31]** see *Lee, Lori*

**Heaton, Ashley [163]** see *Lopez-Bejarano, Jose Maria*

**Heckenberger, Michael (University of Florida)**

[90] *Human Agency and Anthropogenic Landscapes: Southern Amazonia*

This paper discusses how human agency is reflected in the constructed "anthropogenic" landscapes of Amazonia. Three primary historical periods are discussed: early Formative period (c. 2500-1500 BP); the rise of regional social formations, complex societies (c. 1500-500 BP), and the post-European period (after c. 1492). The Upper Xingu region (southern Amazon), specifically, is used to consider the scale, organization, and built environment of pre-Columbian social formations, based on "participatory" and interdisciplinary research approaches. Correlations with other areas are discussed, in light of regional indigenous history, cultural rights, and contemporary issues of conservation and development.

[90] see *Toney, Joshua*; [146] see *Schmidt, Morgan*; [202] *Discussant*

**Heckman, Robert [62]** see *Hooe, Malcolm*

**Hedden, John (University of Iowa), Peterson, Cindy (University of Iowa) and Nagel, Cindy (University of Iowa)**

[250] *Developing a Dataset for the Examination of Post-Contact Changes in Indigenous Lifeways and Material Culture in Iowa*

Post-contact Native American sites are quickly disappearing from the Iowa landscape, making their identification and study a priority. A multi-year project undertaken by the University of Iowa Office of the State Archaeologist is concentrating on the identification, documentation and assessment of research potential for these sites. The initial focus of this project is identifying the physical locations of sites associated with tribes who resided in Iowa during the historic period. Analysis of materials from these sites holds the potential to yield information concerning daily practices, social life, economy and political system during this period of intense change.

**Hedman, Kristin [104]** *see Hargrave, Eve*

**Hedquist, Saul (Northern Arizona University)**

[99] *Inferring Sinagua Social Organization: An Examination of the Quantity and Distribution of Exotic Material Goods*

Status differentiation is a factor commonly examined when considering the development of complexity, which often involves differential access to wealth, resources, and social position. To test for differential access to prestige goods, I examine the distribution of exotic material recovered from several ancestral Puebloan sites located in the vicinity of Flagstaff, Arizona. The distribution of exotic commodities, including shell, copper, macaws, pigments, and turquoise, is analyzed to better understand the social organization of Sinagua society between AD 1065 and 1250. The goal is to determine if the distribution of prestige goods suggests restricted access within Sinagua culture.

**Hegmon, Michelle (Arizona State University), Nelson, Margaret (Arizona State University) and Kulow, Stephanie (Arizona State University)**

[75] *Conformity in Mimbres Pottery, Constraints on Mimbres Lives?*

We have argued that homogeneity in Classic Mimbres material culture is indicative of social conformity associated with social and subsistence stresses. Here, we evaluate this argument in more detail, focusing on the designs on Mimbres painted bowls. Analyses consider symmetry, structure, type of motif, and types of design elements. We include collections from the Mimbres Valley and the eastern Mimbres area. Thus we are able to consider whether the Mimbres Valley (which had more evidence of subsistence and social stress) had less diversity, indicative of greater conformity. We can also evaluate if diversity decreased over time as stress increased.

**Heitman, Carolyn (University of Virginia)**

[108] *Birds in the Chaco World: A Distribution Analysis in Ethnographic Context*

Recent scholarship on Chaco Canyon, NM circa AD 850-1180 has highlighted how Pueblo Bonito, one of the largest structures in the canyon, experienced a complex evolution resulting in equally complex room assemblages. Though the interpretation of these assemblages is still under debate, further analyses of particular artifact classes continue to inform anthropological interpretations of Chaco Canyon. In this poster I analyze the use of birds in the Chacoan world by presenting species and faunal element distributions. Having synthesized these data, I endeavor to interpret the patterns of feather and bird bone use in light of the regional ethnographic literature.

**Heldal, Tom (Geological Survey of Norway), Bloxam, Elizabeth (University College London) and Storemyr, Per (Expert Center for Conservation of Monuments and Sites)**

[30] *New Evidence for the Use of Fire in Ancient Quarrying*

The use of fire can be extremely efficient in the quarrying of hard, siliceous rocks, particularly for creating surface-parallel cracks along which blocks can be extracted – a technique applied since the Palaeolithic. New evidence shows that fire setting was much more widely used in Ancient Egypt than previously believed, where highly specialized skills were developed in applying fire setting to different rocks and production purposes. The acknowledgement of fire setting as important in ancient hard rock quarrying raises many questions concerning ancient extraction technology and the influence of quarrying operations on the local environment.

**Heldal, Tom [30]** *see Storemyr, Per; [30]* *see Bloxam, Elizabeth*

**Heller, Andrew (Indiana University of Pennsylvania)**

[43] *A Comparison of Electronic Resistivity, Magnetic Susceptibility, and Magnetometry in Locating Cultural Features in Late Prehistoric Sites in Pennsylvania*

The use of geophysical sensing technology has the potential to reduce the archaeological effort needed to investigate a site through the systematic excavation of shovel test pits. This presentation will explore the reliability and efficiency of electronic resistivity, magnetic susceptibility, and magnetometry for the location of cultural features associated with Late Woodland sites in Pennsylvania through a comparison of the three methods in addition to the systematic excavation of shovel test pits to ground truth the results.

**Helmuth, Hermann [189]** *see Wrobel, Gabriel*

**Henderson, John S. (Cornell University) and Joyce, Rosemary (University of California - Berkeley)**[86] *Social Relations and Style in Late Early Formative Honduras*

Recent excavations at Puerto Escondido and Los Naranjos in northern Honduras produced evidence of local expressions of widely shared Late Early Formative material practices and visual imagery, including canons of serving vessel form and decoration and patterns of bodily ornamentation. Data from Puerto Escondido demonstrate that some of these material practices were widely distributed earlier in the Early Formative.

**Henderson, Matthew [12]** *see Doherty, Heather*

**Hendon, Julia (Gettysburg College)**[235] *Maya Home Life: Daily Practice, Politics, and Society in Copan, Honduras*

The complexity of complex societies comes into sharper focus through the study of the domestic. The domestic is defined here as the day-to-day interactions and special events taking place in people's houses and associated spaces. Studying these interactions and the social relations enacted through them in the Late to Terminal Classic Maya polity of Copan (Honduras) demonstrates that the domestic is not a domain solely concerned with basic processes of reproduction and socialization. On the contrary, it is through daily practice that social, economic, and political relations are materialized and questions of status, control, and authority contested.

[147] *see Lopiparo, Jeanne*

**Henshilwood, Christopher [32]** *see d'Errico, Francesco*

**Herbert, Joseph [43]** *see McReynolds, Theresa*

**Hernandez, Christine (MARI-Tulane University) and Healan, Dan (Tulane University)**[193] *The Role of Late Pre-Contact Ethnic Enclaves in the Development of the Eastern Tarascan Frontier*

According to ethnohistoric sources, northeastern Michoacan became incorporated into the eastern frontier of the Tarascan Empire during the early 1400s. When Europeans arrived the region was multiethnic in character, with enclaves of foreigners living within communities as well as comprising whole communities. Recent investigation in the Ucareo-Zinapecuaro source area uncovered evidence of foreign enclaves consisting of two settlements whose ceramics are distinct from those of neighboring sites while indistinguishable from those of Epiclassic Huamango in the Acambay region of the Toluca basin. The implications of these data concerning Ucareo obsidian exploitation are considered, along with the results of preliminary chronometric dating.

**Hernandez, Christine (Tulane University) [37]** *Discussant*

**Hernandez-Jimenez, Maria de Lourdes [23]** *see Doering, Travis*

**Hernández-Jiménez, María de Lourdes (Centro INAH Veracruz) and Doering, Travis (University of South Florida)**[23] *Hallazgo Arqueológico en el Sitio Formativo El Marquesillo*

El Hallazgo de un Trono de estilo Olmeca, nos ha permitido conocer un sitio mas en el área metropolitana de la Costa del Golfo con ocupación en el periodo Formativo. Durante los trabajos de rescate del monumento se recuperaron ofrendas que aportan datos sobre la deposición del mismo. Las excavaciones posteriores al rescate nos señalan la ubicación de la población contemporánea al Trono que al parecer tuvieron una continuidad cultural que va desde el formativo Temprano hasta el Tardío, tiempo en que culmina la función social, política y religiosa del Trono.

**Hernández-Mora, Iosvany (Oficina del Historiador de la Ciudad de la Habana)**[112] *Patrimonio y Arqueología Histórica: Relaciones Problemáticas en el Obrar con el Pasado*

En la actualidad, la labor de conservación del Patrimonio edificado muestra un conjunto de actividades y representaciones teóricas, que emergen de disciplinas tales como: Restauración, Arquitectura y Arqueología. La representación de las diferentes praxis disciplinares comporta un espacio poco coherente de aplicabilidad en función de los objetivos que se plantean para el logro de una autenticidad en la restauración. A partir de la experiencia en la práctica arqueológica con fines restaurativos en el centro histórico de la Habana Vieja, se pretende

explicitar la problemática y plantear alternativas resolutivas inmediatas, en cuanto a la instrumentación de una posición teórica coherente.

**Heron-Matthews, Leah (New York University), Hawrylchak, Shana (Harvard University) and Taylor, Christine (Montclair State University)**

[246] *Investigation of a Hinterland Maya Ball Court at Chawak But'o'ob, Belize*

A ritual ball court was recently discovered at Chawak But'o'ob, 2.5km southwest of the medium-size urban center of Dos Hombres, Belize. This otherwise architecturally unassuming Late Classic community is characterized by relic commoner settlement distributed across a sloping escarpment at the edge of a seasonal wetland. This paper considers the degree to which the character and location of the ball court are in accord with the current model of Classic Maya ball courts as public venues for the centralization of political, economic, and ritual authority. The data presented here also contribute to the current discussion of lowland Maya rural-suburban ceremonialism.

**Herr, Sarah (Desert Archaeology, Inc.)**

[171] *Bull Riders and Bears' Houses: An Apachean Landscape below the Mogollon Rim*

The Mogollon Rim region of central Arizona is home to two modern reservations and was the pre-reservation homeland of the Western Apache. A research project by the Tonto National Forest heritage program and large-scale cultural resource management projects have increased our understanding of early Apache in this region. This preliminary research shows that the direct application of early twentieth century ethnographies to the archaeology is not appropriate, but a program that includes archaeology and the interpretations of modern Apache is critical for eliciting the faint material traces of a robust Apache history from this landscape.

**Herrera, Alexander (Universidad de los Andes)**

[60] *Circular Kancha Enclosures: Theatres of Social Interaction*

In this paper I address the active and changing role of circular kancha and patio group enclosures in the Ancash highlands of Peru. The structure of these circular and tower-like buildings, I argue, was pivotal to the generation and negotiation of social identity (and difference) for most of the first millennium AD. Individual and collective movement in such orchestrated architectural settings bound groups of individuals, possibly mortuary and ceremonial communities, to "their" ancestral dead. The ubiquity of such theatres of social interaction in central Conchucos suggests, that many durable social groups shared a similarly structured, and closely interrelated, sacred landscape.

**Herrera, Roberto (University of New Mexico)**

[230] *Re-evaluating Settlement Variability and Social Organization in the Upper General Valley, Southern Costa Rica*

Previous work in the General Valley of Southern Costa Rica has provided investigators with a preliminary model on how inhabitants of the region interacted and developed with implications for interpreting settlement organization. Current work at the formative site of El Cholo evaluates this model by exploring inter and intra site organization and its articulation with social organization and emergent social complexity. By generating new data on architectural and artifactual organization and comparing them to information from past investigations this research provides in-depth examination of the ideas behind the nature of settlement and social organization in the region.

**Herrera, Roberto [198]** see Gallison, Jim; **[72]** see Kilby, David

**Herrmann, Jason (University of Arkansas)**

[43] *A GIS Approach to Determining Seasonal Land Use Strategies*

An interaction between seasonal changes in water variability and solar radiance may hold the key to understanding land use strategies in the Ozark Uplands. Cultural materials located during shovel test surveys of two national parks; Pea Ridge National Military Park, Arkansas and Wilson's Creek National Battlefield, Missouri were mapped using GIS. Distributions were then tested for patterns that would indicate a seasonal cycle of land use. While the outcome did not support our hypotheses, this work does raise issues that warrant further investigation. Particularly, would a larger study area provide different results? Would seasonality be visible in the archaeological assemblage?

**Herrmann, Nicholas [43]** see Devlin, Joanne

Hertel, Fritz [17] *see* Plummer, Thomas

Hess, Virginia [244] *see* Berman, Mary Jane

**Hickerson, Robert (UNLV) and Roth, Barbara**

[226] *Expanding Our View of Mogollon Pithouse Occupations Using Lithic Analysis*

The Mimbres Mogollon region is renowned for its pottery, and not surprisingly archaeologists working in this area have focused on ceramic analysis in interpreting the past. In this paper, our goal is to move beyond this reliance on ceramic data and use lithic data from our recent excavations at the La Gila Encantada site in the Mimbres region to explore important research questions concerning agricultural dependence and occupation duration. We argue that lithic data can contribute substantially to our understanding of processes of cultural change during the Pithouse period.

**Hicks, Dan (University of Bristol)**

[121] *Beyond Asymmetry: A View from Historical Archaeology*

This paper considers the potential significance of the notion of a "symmetrical archaeology" from the point of view of the archaeology of the most recent past. Inspired by Latour's critique of a spurious, asymmetric "Great Divide" - between human and nonhuman/material worlds, or between modern and premodern situations - the paper explores how archaeological studies of the most recent past question the distance between past and present, archaeologist and object. Rather than leading to a new interpretive formalism, based around the geometrical metaphor of symmetry, the paper proposes a shift away from 'asymmetric' approaches towards accounts that foreground complexity, material agency, noncoherence and partiality.

**Higueras, Alvaro and Hirst, K. Kris**

[134] *The WWW and the Influence of Archaeology in the Public Arena*

What impact has archaeology had on the public arena through the WWW? The discipline of archaeology and its promoters have periodically assessed the influence of the discipline on many aspects of civil society and the dissemination channels at its disposal. For a decade the WWW has been a formidable tool to disseminate archaeological information in all its facets: academic, public, amateur, all side by side and available to a broad and diverse audience. What impact has promotion through the WWW had on the public? Are there changes to the predominant pre-WWW situation of archaeology as an academic discipline?

**Hilbert, Klaus (PUCRS)**

[69] *A Hunter-Gatherer Cave Site from the Serra do Carajás, Amazon, Brazil*

The "Gruta do Gavião" site was discovered in the 1980s by researchers of the Museu Paraense Emílio Goeldi. The first geo-stratigraphic unit contained potsherds and flaked material and a C14 date of 2,900±90 BP. The second unit had large quantities of flaked material and dated by radiocarbon in 8,140±130 BP. The lithic industry of the preceramic unit is based on hyaline quartz crystals, which were exclusively flaked in the bipolar technique. Among the retouched instruments, end- and lateral-scrappers are dominant. No bifacial projectile points or other bifacial instruments were found.

**Hildebrandt, William (Far Western Anthropological Research Group) and McGuire, Kelly (Far Western Anthropological Research Group)**

[195] *The Archaic-Formative Transition: Costly Signals, Human Behavioral Ecology, and the Rise of Incipient Horticulture*

The transition to formative lifeways in the New World is often viewed as driven by population/resource imbalances. A review of actual subsistence trends and other data associated with this period, however, reveals that far from a collective commitment to higher levels of resource production, this transition is often marked by participation in various costly signaling pursuits that appear to have been underwritten by the increased provisioning efforts of women. We argue that an understanding of the human behavioral ecology behind the archaic-formative transition is crucial to sorting out the paradoxical energetics of this defining moment in human history.

**Hill, Brett (Hendrix College), Clark, Jeffery J. and Lyons, Patrick D.**

[3] *Hohokam Canal Maintenance and Survival: A Spatio-Temporal Dilemma*

Hohokam canal systems in the Phoenix Basin were among the most impressive agricultural

features in the New World. Despite extensive study, the causes and tempo of the collapse of these systems during the late 14th and early 15th centuries AD remain poorly understood. We address these issues modeling potential canal maintenance problems using a GIS that integrates detailed maps of these systems with recent refinements in site chronology. Canal maintenance responsibilities and rewards were not evenly distributed among and within communities. Preliminary evidence suggests that this variability made overall system function increasingly problematic through time leading to eventual failure.

**Hill, Cheryl (Pennsylvania State University) and De Leon, Jason**

[141] *The Biological and Cultural Implications of Craniofacial Disorders Depicted in Olmec Art*  
 Anthropomorphic representations are often inspired by real-world observations. A common theme in Olmec art is the depiction of individuals with apparent craniofacial disorders and physical disorders. This may indicate two things. First, some real craniofacial disorders may have been common across the Olmec region. Second, individuals with these conditions were possibly revered. We examine a series of figurines and sculptures to assess the possibility that the craniofacial disorders depicted in Olmec art are representative of the common Down syndrome phenotype. The beliefs and practices concerning the treatment of individuals with Down syndrome among various small-scale societies are discussed.

**Hill, Erica (University of Alaska )**

[218] *Beyond Trophy Skulls: Interpreting Decapitation in Ancient Peru*  
 The iconography of prehistoric South America features abundant imagery of decapitation and the human head. Such representations, and the archaeological evidence for the practice of decapitation, have been interpreted as evidence of a trophy head cult among the ancient Nasca and Moche. The trophy head model, which may satisfactorily describe decapitation and head-taking in other regions of the world, is inadequate within a Peruvian context. Examination of context coupled with cross-cultural data suggests that alternative interpretations may better account for the evidence.

**Hill, Glenn (Texas Tech University), Loudon, Elizabeth (Texas Tech University), Smith, Gary (Texas Tech University) and White, John (Texas Tech University)**

[62] *Picking up the Pace: Using 3D Laser Scanning as an Archaeological Documentation Tool at Mesa Verde National Park*  
 The scientific documentation of archaeological structures is expensive in terms of time and labor costs as well as laden with potential human errors in measurement, field recording and transcription. There have been significant recent advances in three dimensional (3D) laser technologies, which allow High Definition Surveying (HDS) of archaeological structures. This technological innovation permits rapid development of highly accurate computer-aided graphic documentation. This paper covers the first phase in the development of an Archaeological Information System, which is the development of a prototype "digital" archaeological field documentation system, including a case study of work done at Mesa Verde National Park.

**Hill, Matthew G. (Iowa State University), Rapson, David J. (Iowa State University) and May, David W. (University of Northern Iowa)**

[217] *Late Paleoindian Site Structure and Subsistence at the O.V. Clary Site, Western Nebraska*  
 Recent excavations at the O.V. Clary site provide new information on Allen Complex hearth-centered activities at a late winter/early spring camp. Bison upper long bones and crania and several birds were processed for consumption. Chipped stone artifacts include two Allen points, several unifacial tools, and debitage. Other items include two bone beads, a bone needle, and a sandstone abrader. The evidence conforms to an emerging pattern of mobility reduction, an increase in diet breadth, marrow processing activities, and greater task diversity at Late Paleoindian cold season occupations.

**Hill, Rebecca (Tulane University)**

[33] *Applying Lithic Analysis to the Study of Maya Social and Economic Organization in the Puuc Region of Yucatán*  
 Although lithic analysis can be utilized to address a wide range of archaeological issues, the study of lithic material in the Puuc region of Yucatán has been minimal. This paper presents the preliminary results of a technological analysis of debitage and tools recovered from recent excavations at the Puuc site of Kiuic, Yucatán. This research examines lithic material from various Classic period residential and non-residential contexts and what it suggests about Maya social and economic organization at Kiuic. This research also provides the foundation for a

wider regional study, which will further refine current interpretations of Maya socio-economic organization.

**Hill, Jr., Matthew E. (University of Arizona)**

[217] *Regional Differences in Great Plains Paleoindian Occupational Intensity and Duration*

This paper evaluates models that portray Paleoindian foragers as either mobile big game hunters or sedentary foragers of small game. A review of lithic, faunal, and site structural data from over 70 plains and mountain sites suggests that land use strategies were in fact regionally and seasonally discrete. Differences in residential mobility and reliance on large game are the result of regional inequalities in the abundance of water, wood, and lithic resources. Paleoindians likely practiced a strategy that combined seasonal mobile big game hunting in grassland settings with semi-permanent camping in protected habitats.

**Hilton, Michael R. (Inyo National Forest) [127] Discussant**

**Hinz, Emily [183] see Nissengard, Jennifer**

**Hirshman, Amy J. (University of Michigan-Flint)**

[193] *Social Complexity and Ceramic Production in the Prehispanic Lake Patzcuaro Basin, Michoacan, Mexico*

Craft producer specialization is one feature of complex societies; consequently theories regarding the emergence of state societies contain expectations on the timing, tempo, and mode of producer specialization. Research in the core region of the Late Postclassic Tarascan state tested these expectations along multiple dimensions using ceramic stylistic, compositional, and morphological attributes. Using a thousand year ceramic sequence, this research indicates that ceramic producer specialization was not associated with the emergence of the Tarascan state.

**Hirst, K. Kris [134] see Higuera, Alvaro**

**Hirth, Kenneth (Penn State University)**

[235] *The Social and Economic Organizational Strategies of Non-elite Households at Xochicalco, Mexico*

Xochicalco was the capital of a regional conquest state in Central Mexico during the Epiclassic period (AD 650-900). Systematic survey by the Xochicalco Mapping Project defined the size and organization of the site's internal urban design. Excavations in several house complexes on the slopes of Cerro Xochicalco have clarified the size, form, and organization of "normal" residential groups during Xochicalco's reign as a regional conquest state. This paper examines three aspects of residential structure at Xochicalco: variation in household size and organization, the expression of social rank within households, and the organization of craft production within domestic contexts.

**[193] Discussant**

**Hiscock, Peter (Australian National University) and Clarkson, Chris (Australian National University)**

[133] *The Construction of Morphological Diversity: A Study of Mousterian Implements*

The arbitrariness of typological divisions within Mousterian assemblages has been much debated, especially as researchers explored the "reduction hypothesis." Models describing the linear reduction of a series of related morphologies, such as different scraper types or different classes of notched implements, have been assessed by a number of researchers. We present a study of linear reduction models for retouched flakes in the famous Combe Grenal site, and investigate the question of whether blank form, reduction trends and technological constraints in notched and unnotched scraper implements are similar. These examinations help study the causes of implement diversity in this Mousterian assemblage.

**Hixson, David [33] see Mazeau, Daniel**

**Hixson, David R. (Tulane University), Mazeau, Daniel E. (SUNY-Buffalo) and Pope, Kevin O. (Geo Eco Arc Research)**

[177] *Surveys, Sensors, Sites and site Limits in the Archaeology of NW Yucatan: Perspectives from the Chunchucmil Region*

Dr. Kurjack's monumental Atlas project pioneered the use of remote sensing for regional settlement pattern studies in Yucatan. Nearly three decades later, the Pakbeh Regional

Economy Project has conducted a follow-up study utilizing the latest remote sensing platforms combined with more intensive ground verification within a limited region surrounding the Early Classic site of Chunchucmil. Results from aerial and space-borne sensors highlight the benefits and limitations of available remote sensing data sets today (including Airsar, Landsat, SRTM, among others). Additional results from ground surveys challenge our discipline's commonly used definitions of Site and Site Limits in the Maya lowlands.

**Hoard, Robert [78]** *see Scheiber, Laura L.*

**Hodell, David A. [132]** *see Gilli, Adrian*

**Hodgins, Gregory [44]** *see Gonzalez, Susana; [44] see Jones, Kevin*

**Hoekman-Sites, Hanneke (Florida State University)**

[153] *When Did Dairying Originate on the Great Hungarian Plain? Using Residue Analysis to Find Out*

Sherratt (1983) described the transition from using domesticated animals only for their meat to using them for their secondary products as well. The goal of this project is to identify when this transition occurred on the Great Hungarian Plain by looking for chemical evidence of dairying in ceramic vessels. Building off work by Craig et al (2003), I developed methods to detect dairying residues and used these methods to examine a broad ceramic sample from Vésztő-Bikeri and Körösladány-Bikeri (using a variety of ceramic forms and contexts).

**Hoff, Michael [232]** *see Wandsnider, LuAnn*

**Hoffecker, John (INSTAAR) and Elias, Scott (Royal Holloway-University of London)**

[66] *The Smell of the Shrub Tundra: Rethinking the Archaeology of Beringia*

Beringia was occupied during the Lateglacial (15-12.8 ka) with the transition to a mesic shrub tundra. The spreading availability of fuel in the form of woody shrubs may have been critical to settlement. The economy reflected a broad-based northern interior diet typical of the postglacial era. The Lateglacial Beringians created a unique industry (Beringian tradition) that bore few similarities to industries outside Beringia. Major change occurred during the Younger Dryas interval (12.8-11.3 ka), with the intrusion of bison hunters from the Plains (Paleoindian tradition), and simultaneous proliferation of microblade assemblages (Paleoarctic tradition).

**Hoffman, Brian (Hamline University), Smith, Ross (Portland State University/National Park Service), Chisholm, Linda (University of Minnesota) and Aymond, Ayla (Hamline University)**

[41] *Shifting Boundaries: Archaeology on the Eskimo/Aleut Frontier*

The identity and interaction of people living at the boundaries between cultures has fascinated archaeologists the world over. One such boundary exists on the Alaska Peninsula between speakers of Eskimo (Alutiiq/Yupik) and Aleut (Unangan). We report here the results of excavations at two sites just north of the historic Eskimo/Aleut frontier. We find differences between their components dating to around 1500 BP. The southern site has an affinity with Aleutian Tradition sites to the south and our northern site resembles Norton Tradition sites to the north. After 1000 BP, both sites resemble Thule/Koniag Tradition sites, demonstrating a southern expansion of this culture.

**Hoffman, Charles A. (deceased)**

[244] *Archaeological Investigations at the Long Bay Site, San Salvador, Bahamas*

The first place in the New World where Christopher Columbus went ashore on 12 October 1492 was the island of San Salvador in the Bahamian archipelago in the northern part of the Caribbean. There has been much debate over the years as to which island is the real San Salvador. We have come to assume, especially after the works of Samuel Morison and Ruth Wolper, that it is the island presently bearing that name. But Joseph Judge has built a strong case for it being another island farther south. Historic records reveal that Columbus saw people on the island, and that he exchanged many trinkets with them - glass beads, fragments of crockery, coins, and other things. Archaeological research presented in this paper covers four seasons of excavations at a site of aboriginal occupation situated close to the presumed San Salvador landing place, and the finding of prehistoric pottery in direct association with objects similar to those Columbus reported trading to the Indians. This evidence supports a strong case for the present-day San Salvador being the site of that momentous first landing.



Hoffman, William R. [138] *see* Day, Mary Beth

Hofman, Corinne [16] *see* Jager, Rolf; [52] *see* Isendoorn, Daan; [70] *see* Bright, Alistair; [84] *see* Hoogland, Menno

**Hofman, Corinne L. (Leiden University), Hoogland, Menno (Leiden University), Boomert, Aad (Leiden University), Bright, Alistair (Leiden University) and Knippenberg, Sebastiaan (ARCHOL, Leiden)**

[1] *Ties with the "Motherland:" Archipelagic Interaction and the Enduring Role of the South American Mainland in the Pre-Columbian Caribbean*

This paper discusses the interaction networks that existed between pre-Columbian island communities and their perpetual ties with the "motherland," the South American mainland. Various lines of evidence are examined: mobility of people through isotope and DNA analysis, exchange of materials through the study of ceramic style, microlapidary objects and lithic raw materials and the transfer of ideas through the study of symbols and cultural traditions. This study adopts a multi-disciplinary perspective incorporating archaeological, archaeometric, ethnohistorical and ethnographic data. This multi-dimensional approach is essential in disentangling the complex web of social relationships that once linked the archipelagic communities to their motherland.

**Hofman, Corinne L. (Leiden University) and Isendoorn, Daan (Leiden University)**

[16] *A Tuneful Threefold: Combining Conventional Archaeological Methods, Geochemical Analysis and Ethnoarchaeological Research in Studying Pre-Columbian Pottery of the Caribbean*

Conventional archaeological methods such as petrographic analysis and technological research of clays and potsherds involving workability tests and experiments of manufacturing techniques are combined with geochemical analysis (XRF and TIMS) to improve our understanding on the provenance of clays, their suitability for pottery production and the different pottery manufacturing techniques in the pre-Columbian insular Caribbean. Ethnoarchaeological research from northern South America is used to conceptualize clay procurement strategies and the pottery manufacturing process in traditional Amerindian society.

**Hogue, S. Holmes (Mississippi State University)**

[242] *Fluoride Dating at Two Mississippian Mound Sites: Hit and Miss*

Ion selective electrode fluoride dating is used to address chronological problems at two Mississippian mound sites located in Mississippi. At Lyon's Bluff, 22OK520, the fluoride contents of deer and human bone are compared with radiocarbon dates and stratigraphic levels to verify the reliability of this method for determining burial chronology. At a second site, the Pocahontas Mound, 22HI500, fluoride content of deer bone is used to corroborate radiocarbon dates and to establish which midden deposits are associated with two distinct occupations identified at the site. Sample age, site location, and bone preservation are considered as possible factors affecting the results.

Hohman, Christopher [35] *see* Versaggi, Nina

**Hokanson, Jeffrey (e2M, Inc.)**

[100] *A New Point on the Frison Effect*

Are projectile points the end product in a reduction sequence? Do they ever change shape after manufacture? In this research I address these questions and conclude that projectile point variation can not be explained without addressing behaviors such as maintenance, recycling, and reuse. To illustrate this perspective I classify Cienega points from Southern Arizona into a reduction trajectory typology. I then show that this typology facilitates the investigation of a broad range of behavioral issues such as hunting intensity, the technological selection process, resource management, and recycling decisions.

[134] *see* Hart, Daniel

Holenbach, Kandace [178] *see* Walker, Renee B.

Holland, Jack [172] *see* Rush, Laurie

**Hollenbach, Kandace (Archaeological Research Lab, UT-Knoxville)**

[217] *Modeling Resource Procurement of Late Paleoindian Hunter-Gatherers: A View from Northwest Alabama*

Although hunting and tool-stone procurement are often emphasized, early hunter-gatherers of the Southeast certainly considered gathering of wild plant foods in their seasonal mobility patterns. Drawing on plant and animal data from four Late Paleoindian and Early Archaic rockshelter sites in northwest Alabama, I employ central place foraging theory to compare the costs and benefits of procuring various plant, animal, and stone resources on a particular landscape. These comparisons are aided by a geographic information system. I then use this information to outline settlement and subsistence strategies of early hunting-and-gathering peoples in the region.

**Hollenback, Kacy L. (University of Arizona) [214] Discussant**

**Hollenback, Kacy L. (University of Arizona) and Grinnell, Calvin (Three Affiliated Tribes)**

[2] *Collaborative Research from a Tribal Perspective*

In the past fifteen years, Native American groups have begun to identify and define their own research problems and agendas. Within this context a growing number of collaborative relationships have developed between anthropologists and different tribes. These relationships are markedly different from those of the past in that tribes, rather than anthropologists, define the needs and goals of the research. Using examples of research conducted in collaboration with the Three Affiliated Tribes of the Fort Berthold Indian Reservation, North Dakota, this poster explores how native concerns for the revitalization of traditional landscape knowledge can be worked into fruitful and substantive partnerships.

**Holliday, Vance (University of Arizona) [185] Discussant**

**Hollowell, Julie (University of British Columbia) [94] Discussant**

**Holmberg, Karen (Columbia University)**

[231] *The Transformative Volcano: Changes in Interpretations of the Volcan Baru's Prehistoric Eruptive History and Its Impact*

The Volcán Barú was given a strong role in highland Chiriqui settlement patterns as a prime mover of settlement changes by studies completed in the early 1970's. Recent archaeological fieldwork and tephra analysis from Barú, however, question prior interpretations of the timing, frequency and impacts of the volcano's eruptions, and encourage a re-envisioning of the volcano's presence in prehistoric life.

**Holmlund, James [62] see Haas, Wm. Randy**

**Holst, David W. (South Dakota Archaeological Research Center)**

[187] *Reexamining Archaeological Sites in the Middle Missouri River Valley of the Dakotas: Integrating GIS in a Transforming Shoreline Setting*

The South Dakota State Archaeological Research Center in conjunction with the US Army Corps of Engineers, Omaha District has completed a field assessment of over 500 cultural resource sites at Missouri River main-stem reservoirs in the Dakotas. The fieldwork focused on the continuing effects of shoreline erosion, inundation and other various impacts at archaeological sites. Accurate and up-to-date GPS data collected has been integrated into GIS databases developed by the State of South Dakota and the Corps. This base-line data survey is vital for future planning based on current site conditions.

**Holt, Emily (University of Michigan)**

[146] *Sustainable Archaeology: Fresh Perspectives on Current Problems*

Many archaeological concerns can be thought of as questions of sustainability. How much of a site should we excavate and how much should we leave to be explored when new methodologies are available? How can local populations achieve an intellectually and financially profitable relationship with archaeological resources without resorting to looting? How can we equitably distribute archaeological resources? In this paper, which will serve as an introduction to the session, I will review existing scholarship on sustainability and its intersection with archaeology and suggest how viewing archaeology through the lens of sustainability can give archaeologists new perspectives on current problems.

**Holthuysen, Jaime (ASU)**

[140] *Mirrors of La Quemada: Looking into Constructions of Power in the Northern Mesoamerican Frontier*

This project presents an analysis of 11 mirror stones found in a cache at La Quemada located in the Malpaso Valley, Zacatecas, Mexico. Various independent lines of evidence suggest ritual use such as: the specific characteristics of the artifacts themselves (such as their carefully polished surface and indications of limited use wear), the depositional context, and the references to the use of similar objects in ethnographic and ethnohistoric literature. This analysis addresses the complex issue of how ritual power is constructed at a regional center, and provides insight into Mesoamerican practices of social power in Epiclassic northern Mexico.

[140] see Ohnerson, Michael; [160] see Searcy, Michael

**Hongo, Hitomi (Kyoto University), Pearson, Jessica (Liverpool University), Öksüz, Banu (Istanbul University) and İlgezdi, Gülçin (University of Tuebingen)**

[215] *Domestication Process of Ungulates in Southeastern Anatolia: A Multidisciplinary Approach at Çayönü*

Results of faunal analysis from Prepottery and early Pottery Neolithic levels of Çayönü suggest that changes in the size and exploitation patterns of pigs, sheep, goats, and cattle had started in the end of Early PPNB or the beginning of Middle PPNB. Marked shifts both in subsistence and social system, however, did not take place until the end of PPN, suggesting that the process was a gradual one. The evidence at Çayönü is examined using multidisciplinary approach, combining analysis of morphology, age profile, and stable isotope analysis.

**Hooe, Malcolm (Statistical Research, Inc.), Heckman, Robert (Statistical Research, Inc.) and McElroy, Stephen (Statistical Research, Inc.)**

[62] *Non-Contact Laser Scanning as a Tool in Ceramic Analysis*

Ceramic reconstruction is frequently undertaken in archaeological analysis for calculating the size and volume of vessels. Traditional methods of volumetric and use analysis are compared in this paper with laser scanning models to assess the accuracy and reliability of each method. A significant advantage of non-contact laser scanning is that it allows multiple analysts in different locations to measure and calculate volumes using the virtual 3D model without the constant handling during traditional methods. Additionally, since most vessels analyzed for this paper will be repatriated, the analytical model remains the principal source for future research.

**Hoogland, Menno (Leiden University) and Hofman, Corinne (Leiden University)**

[84] *Island Dynamics: Evidence from Strontium Isotope Analysis*

The existence of elaborate exchange networks has been attested by the distribution of exotic raw materials, goods and ceramic styles over the islands. Exchange is regarded as instrumental in shaping and maintaining social relationships between islanders, thereby safeguarding one's own fitness. The search for marriage partners is seen as the driving force behind the establishment of these relationships. Analyses of strontium isotopes on human bone from Saba and Guadeloupe provide insights into the residence rules of the island inhabitants. Results of these analyses are presented and subsequently interpreted in the wider context of mobility and exchange in the pre-Columbian Caribbean.

Hoogland, Menno [1] see Hofman, Corinne L.; [16] see Booden, Mathijs; [16] see Jager, Rolf

**Hoopes, John (University of Kansas)**

[34] *The Were-Saurian in Chibchan Iconography: Therianthropy and Shamanism in the Archaeological Record of Central and South America*

The Pre-Columbian iconography of southern Central America and northern South America is replete with anthropomorphic saurians (caimans and/or iguanids) beginning over two thousand years ago. These are traditionally interpreted in the context of models that identify the actors as shamans. However, critiques of the "shaman" concept in Mesoamerica highlight the need for models firmly rooted in specific cultures. This paper will examine the identity of were-saurian beings in the archaeological record of Chibchan-speaking regions, placing these agents within a larger framework of pan-regional concepts of origin myths and non-biomedical models for disease.

**Hopkins, Mary (Wyoming SHPO)**

[225] *Data Management on a Budget: Wyoming SHPO's Cost Effective Approach to User Driven Information Systems*

Inventory and site recording in Wyoming has quadrupled in the past five years. With static budgets and staffing, the WYSHPO has opted towards information technology to serve and meet user needs. Cost effective approaches have been utilized to reduce time in capturing and returning data. On-line examples and a cost benefit analysis of WYSHPO's information management system will be presented. Are there real cost savings? Can we insure data becomes information? Can these systems serve academic, consultant, industry, and the public's need to better understand the resource? What are the pros and cons in creating standard information systems?

**Horton, Beth (Washington State University)**

[172] *Environmental Influences on Lithic Technological Organization in Central New York*

During the Transitional Period (4000-3000 BP) archaeological sites represent occupations of limited duration reflecting opportunistic utilization of local resources. Researchers have postulated that modifications in technological organizations seen at this time may be directly related to changes in the physical environment. X-ray spectroscopy of local and regional unmodified chert, in conjunction with analysis of reduction technologies utilized at the Thomas-Kahn Site, provides insight to lithic management strategies utilized along the Seneca River floodplain. Results are examined in conjunction with recent palynological and environmental data.

**Hostenske, Mary (Kenyon College)**

[234] *The Hinterland of the Hinterland: Spatial Patterning at Los Naranjitos, El Paraíso Valley, Department of Copan, Honduras*

People create cultural identity. These identities can be investigated archaeologically by studying material culture, site plans, and construction patterns at residential sites. In this paper, I explore the cultural identity of people who lived in the elite residential site of Los Naranjitos, located 150m west of the larger Classic period (AD 600-900) center of El Cafetal, one of two centers that dominates the El Paraíso Valley, Department of Copan, Honduras. A comparison of Los Naranjitos with elite residences at El Paraíso, the other valley center, provides insight into the creation of identity and organization of secondary centers within the region.

**Houk, Brett [120]** *see Hageman, Jon*

**Houk, Brett A. (SWCA Environmental Consultants), Law, W. Boone (SWCA Environmental Consultants) and Miller, Kevin A. (SWCA Environmental Consultants)**

[209] *Investigating Early Archaic Site Structure and Organization at the Gatlin Site, 41KR621, Kerr County, Texas*

SWCA Environmental Consultants excavated 41KR621, the Gatlin site, in southern Central Texas on behalf of the Texas Department of Transportation in 2004. The site includes an extensive Early Archaic component dating to ca. 6000 BP. As one element of a comprehensive research design, SWCA studied Early Archaic site structure, examining the spatial distribution of features, activity areas, and artifacts to look for evidence of possible habitations and infer social organization. This paper presents the in-progress results of that study.

**Houston, Stephen D. [190]** *see Scherer, Andrew K.*

**Hovers, Erella (The Hebrew University of Jerusalem) [197]** *Discussant; [17]* *see Goldman, Talia*

**Howard, Laura (Beyond Touring)**

[189] *Cultural Tourism: A Perspective from Lamanai, Belize*

Through the facilitation of partnerships between commercial, cultural and public sectors the Lamanai Archaeological Project (LAP) furthers opportunities in cultural tourism. Since 1998 the LAP has coordinated efforts between local ecotourism lodges, Belize's Institute of Archaeology, Canadian International Development Agency (CIDA), British High Commission, in-bound tour operators, and other organizations. These types of partnerships create meaningful cultural attractions and venues that further sustainable economic and social development in areas where archaeological research is conducted. This paper will examine the past, present and future endeavors of the Lamanai Archaeological Project as they relate to cultural tourism.

**Howell, R. Emerson (University of Arizona) and Adams, Karen (Crow Canyon Archaeological Center)**

[93] *Domesticated and Wild Plant Use at Chevelon Ruin*

Charred plant remains of domesticates (maize, squash, cotton) and a wide variety of wild foods and wood of trees and shrubs have all preserved within Chevelon Ruin. Maize is preserved in many samples, suggesting modes of storage and use. A pilot study to examine traits of maize cob segments suggests occupants grew a single maize landrace. Wild plants of disturbed and stable habitats were gathered for food, some from uplands. Wood of cottonwood/willow and juniper trees provided fuel and constructions elements. Pine wood from higher elevations traveled to the pueblo as driftwood. Use of riparian plant species is also indicated.

**Howell, R. Emerson [107]** see Adams, Karen R.; [93] see Shaw, Margaret

**Howey, Meghan (University of Michigan)**

[104] *Monuments and Movement: A Multi-criteria GIS Model of the Accessibility of the Missaukee Earthworks*

The Missaukee Earthworks (20MA11-12) was a monument center for intercommunity ritual aggregation in the Upper Great Lakes during the Late Prehistoric (AD 1200-1600). To understand the site's role in the regional landscape, three criteria critical to prehistoric movement were used to create a cost-surface model of Michigan. Optimal routes and an index of accessibility were calculated from thirty sites. Discrepancies in Missaukee's accessibility by communities from different territories revealed through the model challenge standard interpretations of social organization in Late Prehistoric Michigan. This project demonstrates GIS-based models of movement contribute to social questions, highlighting their applicability to archaeology in general.

**Howie, Linda (University of Sheffield)**

[189] *On the Home Front: Local Trajectories in Pottery Production and Consumption at Lamanai, Belize, During the Classic to Postclassic Transition*

Situated at the geographical crossroads between declining spheres of power centred in the southern lowlands and ascending hegemonies in the north, sites in northern Belize offer a unique insight into the ways in which local communities were affected by regional-level developments that transpired during the Terminal Classic to Early Postclassic period. This paper examines the factors affecting community-level patterns of pottery production and consumption at Lamanai, based on the evidence deriving from contexts of ritual and ceremonial activity. The focus is on continuity and change in local approaches to pottery manufacture, and patterns of use and deposition.

**Hranicky, Jack**

[100] *Paleofluting - Mechanics or Culture?*

This illustrated paper discusses possible origins for Paleoindian fluting technology. It is based on study collections from northern Florida and adjacent southern Georgia. The basic premise is that fluting originated in earlier-than Clovis lanceolate forms in this geographical area. Based on semi-fluted specimens, it was a developmental technology that evolved into the full-face fluting, such as the Cumberland and Folsom types. Since Florida has few paleosite excavations and subsequent radiocarbon dates, comparative morphology is used to argue fluting stages. Numerous Southeastern lanceolates show basal thinning flakes that is argued as being the "learning or initiating" stages for fluting.

**Huber, Jane (Blackwell Publishing) [88]** *Discussant*

**Hublin, Jean-Jacques (Max Planck Institute for Evolutionary Anthropology), Jaubert, Jacques (Université de Bordeaux I), McPherron, Shannon (Max Planck Institute), Soressi, Marie (Max Planck Institute) et al. (Université de Bordeaux I)**

[76] *Preliminary Results from the MTA of the Recently Discovered Site of Chez-Pinaud Jonzac (Charente-Maritime, France)*

The Mousterian of Acheulian Tradition (MTA) is a late Middle Paleolithic industry particularly well represented in southwest France. The recently discovered site of Chez-Pinaud Jonzac (Charente-Maritime, France) contains a deep sequence of Middle Paleolithic industries, probably dating to OIS 3 and 4, including at the top an MTA, perhaps a Chatelperronian, and early Aurignacian. This poster presents the results to date from the on-going excavations of the MTA

deposits including their geological context, an analysis of the lithic industry, usewear analysis of the bifaces, the associated faunal assemblage, the single associated hominin remain, and AMS dates.

**Hublin, Jean-Jacques [76]** *see Jaubert, Jacques*

**Hudson, Corey (Truman State University)**

[137] *Herders' Food: A Cross-Cultural Study of Pastoral Diet*

Pastoralists regularly practice patterns of subsistence with little direct connection to the products of their economy. This analysis of 31 pastoral cases illustrates that it is possible to project the contribution of pastoral products in the diets of pastoralists. The first argument of this analysis is that the contribution of pastoral products to diet is directly related to the dependability of plant resources. Second, low primary productivity and extreme seasonality often lead to herds composed of mostly small bodied sized stock. The result of varying herd demographics is differential rates of milk or meat in the pastoral diet.

**Hudson, Erin (University of New Mexico)**

[106] *Magnetic Southwest: The Application of Magnetometer Technology at Prehistoric Sites in the Blue J Great House Community, New Mexico*

Magnetometers have been used successfully for years in archaeological research. Application of this technology has, however, been minimal in the American Southwest. The goals of the research presented here were: to create a baseline database by surveying known features that could then be used to extrapolate information from surveys of unexcavated areas; to test the accuracy of the equipment by excavating previously surveyed features; and to develop a methodology for applying magnetometer surveys throughout the Southwest. The poster presents a methodology for practical and efficient magnetometer surveys and discusses their value in guiding archaeological excavations.

**Hudson, Jean (University of Wisconsin-Milwaukee)**

[89] *Ecological and Social Dynamics of Fishing in Coastal Peru*

The archaeology of Peru's coast has given us theoretical models for the importance of fishing cultures in emerging political complexity, some of the earliest coastal sites in the Americas, and fascinating contrasts in long-term cultural trajectories. It is a region famous for its rich fisheries, its early monumental buildings, its elaborate traditions of mummification, and its volatile ecology. Contrasts of north, central, and south coast archaeology, in combination with ethnographic work among modern reed boat fishermen and their families, highlight some of the social and ecological dynamics of fishing life.

**Huerta Rodríguez, Jorge Pablo (ENAH)**

[131] *The Cave of Chakal Ja'as: Governing Axis in Site Planning?*

We can affirm that caves had an important role in the settlement planning of Prehispanic sites; this role would include that of both a symbolic and functional character. Based upon results from the 2005 season of the CRAS Project in the Sacalaca ejido, a model of the settlement pattern of the site of Chakai Jaas and its relationship with an associated cave is presented. Additionally, it is compared with the settlement patterns of other sites in the region and elsewhere in the Maya area, at which caves are found.

**Hughes, Karen (HHM) and Loudon, Elizabeth (Texas Tech University)**

[62] *M&Ms on Main Street: Maximum Data in Minimum Time*

Small town mid-America faces redundancy across the country. Documentation of these fast vanishing treasures falls far short of their importance as developmental increments within our nation's history. As a part of the Texas Department of Transportation's goal to archive representative examples of historic communities, a project developed to record the railway community of Troy, Texas. This case study paper presents work flows, time and budget constraints and a critical overview of project results. The use of the HDS3000 3D laser scanner accomplished maximum data collection of over 30 million measurable points in less than a week.

**Hughes, Randall E. [74]** *see Wisseman, Sarah U.*

**Hughes, Susan S. (University of Durham, England), Budd, Paul (University of Durham, England), Millard, Andrew (University of Durham, England), Roberts, Charlotte (University of Durham, England) and Evans, Jane (National Isotopic Geophysical Laboratory, British Geological Survey)**

[141] *Pb Exposure and Metal Use in Early Anglo-Saxon England*

The Dark Ages of England (400 to 600 AD) following Roman abandonment are dark because little is known of this period. Geochemical studies of human bones and teeth provide one way to gain useful insights into Dark Age culture and lifestyle. In our study, we measured Pb concentrations and isotopic ratios in human tooth enamel from three early Anglo-Saxon cemeteries in England dating to this period. The Pb concentrations reveal that lead exposure has generally declined following the Roman era. The Pb isotopic ratios suggest a British origin for lead ore with increased recycling of existing metal products.

**Hull, Kathleen [155] see Douglass, John**

**Hull, Sharon (ENMU/ORNL/Univ. Manitoba), Fayek, Mostafa (ORNL/University of Manitoba), Mathien, Joan (Museum of New Mexico), Shelley, Phillip (Eastern New Mexico Univ.) and Roler Durand, Kathy (Eastern New Mexico)**

[57] *Using H and Cu Stable Isotopes to Source Prehistoric Turquoise*

Turquoise was an important commodity in prehistoric Southwestern and Mesoamerican cultures. We developed a technique to identify the source of archaeologically recovered turquoise that will allow the reconstruction of pre-Columbian trade networks. We used the stable isotopes of hydrogen and copper to characterize 12 mines throughout the southwestern United States and compared artifacts from Chaco Canyon and Guadalupe Community. Although the majority of the artifacts fall within the distribution pattern for the Cerrillos Hills, NM mining district, several fall within other mining areas including Orogrande, NM. These preliminary results suggest that Chaco Canyon obtained turquoise from several sources.

**Hunsaker, Lori (University of Utah & Bureau of Land Management)**

[195] *Geophytes, Beyond a Caloric Approach*

Geophytes are plant resources commonly exploited by women. Plant exploitation is normally modeled in terms of caloric gain. Ethnographic reported use of some geophytes suggests that they may have been acquired for reasons supplemental to caloric gain. Recently, anthropologists have examined the effects of non-caloric benefits on hunting decisions and faunal patterning. Could these non-caloric benefits influence vegetal resource decisions as well? The distribution and chemical structure of some geophytes makes them an excellent candidate for social payoffs. This paper will use Ostrom's resource typology and Costly Signaling Theory to investigate this possibility.

**Hunt, Terry (University of Hawaii), Lipo, Carl (CSU Long Beach) and Rapu-Haoa, Sergio (University of Hawaii)**

[50] *An Elephant in the Room: Current Problems in Easter Island Archaeology*

Researchers often portray Easter Island's archaeological and palaeo-environmental records as widely documented and well understood. However, a critical review reveals many problems with primary data, its accessibility, reporting, reliability, and validity. Many of the claims made about the island cannot be supported; indeed some are simply fabricated. Claims of archaeological documentation are dangerously misleading as a crisis in historic preservation emerges.

**Hunt, Terry [50] see Lipo, Carl**

**Hurst, Heather (Yale University)**

[48] *The Artists of San Bartolo: A Study of Preclassic Mural Production*

The recent discovery and subsequent investigation of the murals of San Bartolo provide a unique opportunity to study the production of art in Late Preclassic Maya society. This paper presents research on the material technology used by these mural artists to prepare stucco and pigments, as well as the overall design, layout, and execution of the wall paintings at San Bartolo. The murals of San Bartolo will also be examined in comparison with the better-known Late Classic mural painting tradition in Mesoamerica.

**[238] see Tokovinine, Alexandre**

**Hurst, Stance (University of Oklahoma)**

[217] *Early Holocene Forager Mobility Patterns and Interactions on the Southern Plains, U.S.A.*

Recent investigations at the late Paleoindian Howard Gully and Perry Ranch bison kill sites in

southwestern, Oklahoma add new data to the intriguing late Paleoindian period puzzle. At the Howard Gully site two shallow side-notched spear points were found with bison that dates to 10,214±55 RCYBP. The two Plainview-like spear points at Perry Ranch have been a subject of typological confusion, and have recently been dated to 8,460±45 RCYBP. The projectile points from these two sites are compared to other late Paleoindian finds with dated contexts, and a sample of over 900 points from surface contexts.

**Hutcheson, Charlene (Leiden University)**

[16] *A New Material to View the Past: Dental Alginate Molds of Fragile Artifacts*

Methods for creating molds and casts of delicate artifacts, while providing useful information, often have major flaws, which among others include removal of excessive material from, and leaving harmful residues on, the original. In addition, most casting materials are bulky, heavy, and difficult to use in the field. I will present a method of mold production using a dental alginate that resolves many of these issues. The alginate is light, requires simple equipment, has high resolution, and minimal artifact damage. The value of negative images (molds) in the analysis of friable Bahamian basketry impressed ceramics will also be discussed.

**Hutcheson, Charlene Dixon [244]** *see McWeeney, Lucinda*

**Hutson, Scott (Dumbarton Oaks)**

[177] *Changes in Spatial Relations Produce Changes in Social Relations: A Dwelling Perspective at Chunchucmil*

Excavations within houselots at Chunchucmil coupled with paleobotanical and soil chemical analyses enable detailed reconstructions of the use of space. As the social groups occupying these houselots grew, new structures were built and spatial relations were transformed. A dwelling perspective assumes that a subject's identity is formed through relations to other people, places and things, and that these relations come into being through daily activities. As the spatial context of activities changes, so does the nature of the relations formed through performing that activity. This paper describes the transformations in social relations that resulted from transformations to the built environment.

[49] *see Dahlin, Bruce H.*

**Huyck, Heather (NPS/William & Mary)**

[46] *ARPA as a Management Tool: The Enhancements of the 1988 Amendments*

The Archaeological Resources Protection Act (ARPA), the basic law used to protect archaeological resources as amended in 1988, strengthened its usefulness by decreasing the value threshold from \$5000 to \$500 and increasing the definition of "damage" to include attempts to damage/take archaeological resources. The law also mandated federal agencies to establish public archaeological awareness programs. As the US House of Representatives subcommittee staffer responsible for handling these amendments, Dr. Huyck brings firsthand knowledge of the process and Congressional intent.

[81] *Discussant*

**Hyde, David M. (University of Texas-Austin)**

[226] *The Impact of Microenvironments on Socioeconomic Organization in the Maya Lowlands: A Stone Tool Perspective*

The Maya Lowlands are a diverse physiographic landscape comprised of multiple microenvironments. In the Late Classic, it is believed that land-use specific communities evolved in less optimal localities creating dependency relationships between sites. In this paper I present the results of the lithic analysis from three sites in Northwestern Belize, concluding that the lithic technological organization reflects localized resource specialization, supporting the theory that these communities functioned in variable ways relative to their specialized position in their microenvironment. This study's regional approach to understanding lithic artifact assemblages refines our perception of Late Classic Lowland Maya socio-economic organization.

[120] *see Fischbeck, Shelly*

**Iannone, Gyles (Trent University)**

[164] *Trent and Belize: A Celebration of an Archaeological Relationship*

This presentation outlines the history of the relationship between Trent University and the country of Belize. The roots of this scholarly alliance can be traced back to the late 1950s. In particular, the past 30 years has seen continuous Trent involvement in Belizean archaeology. This connection has manifested itself in a myriad of research projects, field schools, and



graduate theses, as well as in the training of Belizeans for positions directly associated with the management of their country's archaeological resources. The presenters in this symposium have all benefited from the Trent/Belize relationship, and their papers celebrate this ongoing association.

[119] *Discussant*

**Igareta, Ana (Museo de La Plata - CAU)**

[181] *On Fifth and Love: Professional and Non-professional Archaeologist: The History of Historical Archaeology in Argentina*

The growing of Historical Archaeology in Argentina as a branch of Archaeology has been a complex process. Since the first works were carried on by other professional than archaeologist, the situation makes archaeologists felt uncomfortable. Is it possible to identify the causes of such peculiar situation? Why historical past were never a subject of interest for Argentinean archaeology until other professionals started analyzing it?

**Ilan, David [15]** *see Rowan, Yorke*

**Ilgezdi, Gülçin [215]** *see Hongo, Hitomi*

**Ingbar, Eric (Gnomon, Inc)**

[225] *The Exciting World of CRM Data Management*

Data management seems one of the most dreary topics in a profession laden with mammoth kills, priceless ceramics, and human sacrifice. It is not. The results of information management are yielding new and better ways to find and to evaluate archaeological materials. In North America, the vast majority of fieldwork (and thus information) is engendered by cultural resources management requirements. This paper discusses some of the different approaches, benefits, and drawbacks to large scale CRM data management systems that are in use and in development in the western U.S.

**Ingbar, Eric [225]** *see Overturf, Jeff*

**Ingram, Scott (Arizona State University) [192]** *Discussant*

**Inomata, Takeshi (University of Arizona) and Triadan, Daniela (University of Arizona)**

[156] *Recent Investigations at Aguateca, Guatemala: An Overview*

The second phase of the Aguateca Archaeological Project was carried out in 2004 and 2005. The project focused on the questions of political organization and dynamics during the Late Classic period when the intrusion of a new dynasty led to a substantial political reorganization in the region. Excavations at Aguateca and neighboring sites, as well as a survey along transects, have provided significant data on the process of negotiation between dynasties and between elites and nonelites.

**Ippolito, John (USDA-Forest Service), Bergstrom, Velicia (USDA-Forest Service) and Skaggs, Sheldon (University of Georgia)**

[22] *Technology Transfer and the Sangro Valley Project*

In the year 1997, the USDA Forest Service, Southern Region, began providing technical application and assistance in the fields of Global Positioning Systems (GPS), Database Systems, and Ground Penetrating Radar (GPR, a geophysical sensing technology). In 2001, through a grant from NCPPT, we hosted the first ever GPR Workshop and have modified it to include GPS and mobile computing training on an annual basis. We also began sharing similar assistance through the USDA Forest Service Heritage Excursion Sangro Valley Project (SVP). The site of the SVP is that of Monte Pallano in the Abruzzo Region of Italy. The sharing of technologies is inherent to the Forest Service partnerships with Oberlin College of Ohio, Oxford University, and the Archaeological Superintendency of the Abruzzo. We have worked alongside SVP participants collecting GPR data and using a Mobile computing kit to collect GPS data. This year, we incorporated using a rather simple tool, the metal detector. This presentation will discuss the intricacies of these partnerships, working with data, an exhibition of data results and how you can become involved.

**Ippolito, John [225]** *see Bergstrom, Velicia*

**Iriarte, Jose (University of Exeter)**

[109] *Multidisciplinary Evidence for Early Cultivar Adoption in Southeastern Uruguay, La Plata Basin*

Multidisciplinary investigations at the Los Ajos mound complex in the wetlands of southeastern Uruguay revealed that during an increasingly drier mid-Holocene, at around 4,190 yr BP, Los Ajos became a permanent circular plaza village and its people subsisted on mixed economies adopting major crop plants such as maize (*Zea mays* L.) and squash (*Cucurbita* spp.) long before previously thought. This paper will discuss the implications of these findings for the investigation of the early dispersal of crops and the emergence of native food-producing systems in the La Plata Basin.

Irish, Joel [10] *see* Judd, Margaret A.

**Iruegas, Sergio (González, Tate & Iruegas, Inc.), R. Boudreaux-Lynn, Jennifer (Camp Gruber) and Tate Iruegas, Melinda (González, Tate & Iruegas, Inc.)**

[97] *The Guy Thornton Historic Cherokee Farmstead (34MS390) in Muskogee County, Oklahoma: Preliminary Spatial Pattern Model and Distinctive Cultural Practices*

Historical studies have described Cherokee Nation and African American freedman cultural material patterns in North America during the 19th- and 20th-centuries. Inter-marriage between these groups and effects on the material record in Cherokee Nation allotment settlements at Camp Gruber, however, has not been investigated. An analysis of domestic structures at 34MS390 using ceramic, glass, metal and lithic tool data shows similar patterns with African American Post Bellum Occupancy Forms. A preliminary spatial pattern model for Cherokee Nation farmsteads is proposed that reflects the cultural material pattern observed at 34MS390 and incorporates the distinctive Cherokee practice of curating ancestral items.

**Isbell, William (State University of New York -Binghamton)**

[235] *Citizens of the Metropole: Huari and Its Urban Network*

Huari was the capital of a vast pre-Inca polity although this great city in Peru's central highland Ayacucho Valley remains little excavated. Of the areas studied, one represents middle class residents; a second was probably a palace. Today, these remains must be reevaluated in light of new excavations at Nawinpukyu, the capital of a local pre-Huari polity, Conchopata, Huari's second city in the Ayacucho Valley, and several provincial centers from colonized territories. Domestic remains reveal deliberate stylistic selectivity, significant social hierarchy, and curiously distributed craft specialization, as well as the importance of women as specialists, perhaps on a seasonal basis.

[175] *Discussant*; [219] *see* Szymczak, Joseph

**Isendoorn, Daan (Leiden University), Hofman, Corinne (Leiden University) and Booden, Mathijs (Leiden University)**

[52] *Back to the Source: Provenance Areas of Clays and Temper Materials of Pre-Columbian Caribbean Ceramics*

Current knowledge regarding the provenance of pre-Columbian ceramic raw materials, i.e., clays and temper materials, and the identification of exchange wares is largely insufficient. Only in rare cases have technological aspects such as the temper constituents of the clays been analyzed, and even then rarely utilizing archaeometric methods. In 2004 a project has started at Leiden University on the provenance and exchange of raw materials within the Lesser Antilles. The results of the project are expected to provide detailed information on the exact provenance of the raw clay materials used by the pre-Columbian potters and their distribution over the islands.

Isendoorn, Daan [16] *see* Hofman, Corinne L.

**Ishihara, Reiko (UC Riverside)**

[156] *Religion, Politics, and Power in the Sacred Landscape: Socio-political Implications of Grieta Usage to the Aguateca-Dos Pilas Dynasty*

During the 2004 and 2005 seasons, the Aguateca Archaeological Project mapped and excavated the Main Grieta, a prominent chasm in the center of the site, and Grieta Rincon, a smaller chasm, at Aguateca. As a focal point in the sacred landscape, the bottom of the grietas were architecturally modified and an abundance of ritual remains were documented. The grietas were used most intensively during Aguateca reign, though limited evidence of earlier use was also revealed. In this paper, social and spatial dimensions of the ritual activities along with the political implications of grieta usage to the dynasty will be examined.

Ishihara, Reiko [64] *see* Guerra, Jenny

Isnardis, Andrei [69] *see* Bueno, Lucas

Israde-Alcantara, Isabel [193] *see* Leavitt, Alissa

Issacson, John [183] *see* Nissengard, Jennifer

**Ivester, Andrew (University of West Georgia) and Williams, Mark (Department of Crop and Soil Sciences, University of Georgia)**

[44] *Holocene Remobilization of Inland Sand Dunes in the Southeastern US*

Although inland eolian dunes on the U.S. Atlantic Coastal Plain were emplaced during the late Pleistocene, localized Holocene remobilization (due to human activity or climate) resulted in buried soil A horizons on the lee sides of some dunes. Along the Altamaha River in southern Georgia radiocarbon ages suggest multiple phases of remobilization. Dates from charred wood fragments include  $10520 \pm 40$ ,  $4170 \pm 60$ , and  $3180 \pm 40$  14C yr BP. The youngest of these phases may relate to Late Archaic or Early Woodland Period human occupation of the site. A final phase of reworking likely resulted from historic occupation.

Jackson, Paul [242] *see* Meredith, Steven

**Jackson, Sarah (University of New Hampshire)**

[159] *Exploring Regional Identity and Architecture: The Case of the Courtly Elites*

This paper investigates the meaning of divergent architectural styles at Classic Maya sites through the lenses of elite political organization and local identity. Specifically, architecture associated with courtly elites (identified by hieroglyphic and material evidence) at Maya lowland sites is compared; these data illuminate the question of whether the known site-to-site structural variation in courtly organization – argued to reflect distinct regional identities or affinities – similarly manifests itself in regional stylistic variation of buildings associated with elites and the court. An argument for the relationship of elite architectural style and place-based identity assertion will be explored.

Jacobs, Johnnie [22] *see* Schultz, T. Clay

**Jacobs, Zenobia (University of Wollongong, Australia) and Feathers, James (University of Washington, Seattle)**

[59] *Luminescence Dating of Middle Stone Age (MSA) Sites in Southern Africa*

Dating the MSA of southern Africa has never been straightforward. Recent developments in optically stimulated luminescence (OSL) dating have resulted in an increased use of this method and the ability to obtain ages with greater precision and accuracy. This paper will present dates for a large number of MSA sites scattered across most of South Africa. These dates were produced by two independent laboratories. This allows for cross-checking the consistency of results between different labs. Putting together all the dates will facilitate the opportunity to assess the ages and durations of different culture-statigraphic entities of the MSA in southern Africa.

Jacobs, Zenobia [40] *see* Rosenstein, Dana Drake; [59] *see* Marean, Curtis

**Jacobson, Jodi (University of Tennessee)**

[239] *Rodgers Shelter Revisited: Environmental Change and the Expansion of the Prairie Peninsula*

Rodgers Shelter in western Missouri is one of the premiere archaeological sites in North America. New research is helping to further define environmental change and its relation to cultural horizons in the region. Recently developed methods of identifying mule deer (*Odocoileus hemionus*) and white-tailed deer (*Odocoileus virginianus*) are applied to bone recovered from Rodgers Shelter. The occurrence of mule deer at the site is demonstrated and differences in mule deer and white-tailed deer skeletal part frequencies are examined. This information is integrated with prior identification of grassland species to better elucidate environmental change over the site's 10,000 year occupation.

Jacobus, André Luiz [69] *see* Schmidt Dias, Adriana

**Jager, Rolf (Leiden University), Hoogland, Menno (Leiden University) and Hofman, Corinne (Leiden University)**

[16] *aDNA Survival in Teeth and Bone Samples in Two Pre-Columbian Cemeteries*

Recovered bones and teeth samples from two burial sites on the islands of Saba and Guadeloupe have been subjected to a pilot study on the amount and quality of surviving DNA. Because of the moderate preservation of the bone material DNA has been also extracted from teeth. This extraction has been performed applying different extraction methods, among others a new non-destructive extraction method by soaking the teeth in a special buffer. The results of this pilot study are evaluated for its use of determining kinship relationships in small-scale pre-Columbian insular communities in the Caribbean.

**Jahnke, Lori (Tulane University)**

[168] *The Implications of Intentional Cranial Modification and Biological Variation for Social Organization on the Central Coast of Peru*

The diversity of intentional cranial modification forms in ancient Peru is well-known among researchers and has inspired some to hypothesize that different types may have functioned as markers of status, geographic origin, ayllu membership, or otherwise marked social boundaries that reaffirm ethnicity. To understand the role that intentional cranial modification may have played in constructing and maintaining social boundaries, data regarding the variation in modification forms and the biological relatedness of groups in the region are compared.

**Jaime-Riveron, Olaf (University of Kentucky)**

[86] *Olmec Greenstone in Early Formative Middle America: Exchange and Process of Production*

The earliest uses of Olmec greenstone (jadeite, greenstone, schist, green quartz, and others) accelerated the interregional exchange of technology and raw materials. These relationships provoked asymmetry between polities of different parts of Middle America and within Olmec sites. There were stronger relationships between the Gulf Coast and Chiapas. In general terms, greenstone artifacts display a evolutionary process similar to ceramics and basalt sculpture in the emergence of complex society during terminal Early Formative times. This paper focuses on the exchange of technological choices and asymmetry between Gulf Coast of Mexico and the rest of Middle America.

**Jaimes, Carla [77]** *see McAndrews, Timothy*

**James, William [204]** *see Johnson, Phillip*

**Janelle, Don [148]** *see Rebich, Stacy*

**Janis, Larry (U.S. Army Corps of Engineers)**

[225] *Beauty or the Beast: Cultural Resource Data Collection, Management, Planning and Dissemination between Federal, Tribal, State and Private Parties*

The Corps of Engineers, Omaha District is responsible for preservation of more than 5,000 sites along approximately 6,000 shoreline miles of federal property. Manual systems were not allowing quality collection, proactive planning or easy dissemination so a multifaceted approach to data collection, management, planning and dissemination was created. Through an interactive demonstration you will see how: Tremble GeoXT units were utilized in data collection; text data was related to geographic data; federal, tribal and state databases/forms are being merged; documents are now readily available; sharing of data was made easy through the World Wide Web; and how security and confidentiality are being maintained.

**Janusek, John (Vanderbilt University)**

[235] *Domestic Life, Ritual Practice, and the Social Production of Tiwanaku Cities*

Conventional interpretations regarding the consolidation of the Tiwanaku state locate the forces of sociopolitical development in supra-domestic productive or economic forces. When considered at all, the processes considered to have played starring roles in the rise of urbanism in the south-central Andes lie outside of the realm of residential life and ritual activity. In this paper I draw on research in early Tiwanaku settlements to demonstrate that recurring social practices with interwoven economic, political, and ideological dimensions were pivotal in stimulating the rise of full-fledged cities and their constituent manifestations of power. In focus here are domestic offerings, mortuary practices, and rituals of consumption, as well as local participation in the construction and ritualized celebration of Tiwanaku's monumental edifices.

[54] *see Ohnstad, Arik*

**Jarvenpa, Robert (University at Albany, SUNY) and Brumbach, Hetty Jo (University at Albany, SUNY)**

[58] *Fun with Dick and Jane: Co-opting the Hunt in Prehistory and Academia*

Comparative ethnoarchaeological research on hunter-gatherers in the Circumpolar world has revealed an inverse correlation between the size of major animal resources and the time devoted to the direct harvest phase of hunting by women. That is, women participate directly in the dispatch and processing of smaller animals, but as prey size increases, women devote more time and energy to the indispensable butchering, processing, storage and food distribution phases of hunting. However, the archaeological literature on the hunting of large animals is virtually silent on women and women's roles in hunting. This raises intriguing questions regarding academic anthropology and archaeology, and its relationship to gender bias and blindness, and how such dynamics impact our profession's interpretation of women and men's lives in prehistory.

**Jarvis, Hugh [143]** *see Youngblood, Dawn*

**Jason, Lyon [196]** *see Merrell, Carolynne*

**Jateff, Emily [250]** *see Arbuthnot, Michael*

**Jaubert, Jacques (PACEA - Université de Bordeaux 1), Hublin, Jean-Jacques (Max Planck Institute, Leipzig), Soressil, Marie (Max Planck Institute, Leipzig) and McPherron, Shannon (Max Planck Institute, Leipzig)**

[76] *The Quina Mousterian from Chez Pinaud, Jonzac (Charente Maritime, France)*

The recently discovered and excavated site of Chez-Pinaud Jonzac (Charente-Maritime, France) contains a particularly rich and apparently well preserved "bone bed" deposit associated with a Quina Mousterian stone tool industry. Analysis of material from the previous excavations show a faunal assemblage dominated by reindeer but with perhaps a shift towards other species towards the end. The stone tool industries appear to be characterized almost exclusively by large Quina type scrapers and debitage associated not with the production of the flake blanks themselves but instead by the production and maintenance of usable edges on these blanks. New excavations are underway to collect better data on the processes that created these bone bed deposits that share striking similarities with the nearby eponymous site of La Quina.

**Jaubert, Jacques [76]** *see Hublin, Jean-Jacques*

**Jauregui, Cesar [95]** *see Mackey, Carol*

**Jazwa, Christopher (University of Rhode Island) and Authier, Martin (Southern Methodist University)**

[107] *Comparative Lithic Debitage Analyses of Forager and Horticultural Activity Areas at the Clements Archaeological Site Complex, Taos County, New Mexico*

This presentation assesses variations in source material choice and reduction sequences in lithic assemblages from forager (late Archaic phase, ca. 1000 BCE) and horticultural (Valdez phase, ca. 900-1200 AD) features in a large site complex within a pinyon-juniper ecological zone south of Taos, New Mexico. Excavations recovered sufficient lithic materials to allow comparisons of material and flake types found at several seasonal late Archaic thermal features and a later Valdez phase pit house and associated surface structures. The data support temporal changes in use of formal relative to expedient tools in this complex and alterations in use of local and nonlocal lithic sources.

**Jelinek, Lauren (University of Arizona), Zedeno, Maria Nieves (University of Arizona) and Running Wolf, Tyson (Blackfeet Tribe)**

[2] *The Roots, Roles, and Etiquette of Elk Hunting among the Montana Blackfeet*

Historically known as buffalo hunters, the Blackfeet had a unique attitude toward hunting and trapping in the forests of the Continental Divide, where powerful spirits and magical animals reside. Yet, late winter subsistence depended on hunting of ungulates, becoming critical to survival in starvation years. Elk hunting increased in importance since the 1890s; it was and is practiced in ceded lands. Through documentation of contemporary elk hunting in the Badger-Two Medicine watershed, one can gain insights not only into site formation processes but also into traditional landscape uses that may be endangered by recreational developments.

**Jenkins, Emma (UCL) and Rosen, Arlene (UCL)**

[61] *Phytoliths as Cultural and Environmental Indicators in the Epi-palaeolithic/Neolithic in Central Anatolia: Case Studies from Çatalhöyük and Pinarbaşı*

Systematic sampling from the sites of Çatalhöyük and Pinarbaşı has provided archaeologists with an opportunity to use phytoliths as both an environmental and a cultural indicator. Differences in phytolith densities within living areas have afforded insights into the use of space and the nature of storage within these sites, which are not always provided by the macro-botanical remains. In addition, temporal changes in densities of individual phytolith forms and genera indicate environmental changes during the Epi-Palaeolithic and Neolithic which would have had a significant impact on the possibilities for land use in this region.

**Jenkins, Emma [61] see Rosen, Arlene**

**Jenks, Kelly (University of Arizona)**

[57] *Tracing the Effects of Spanish Colonialism Upon the Plains-Pueblo Exchange*

The impact of Spanish colonialism on the Plains-Pueblo exchange is not well understood. Pre-colonial exchange (AD 1528-1598) focused primarily on the movement of foodstuffs between Pueblo and Plains Indians. In the early colonial period (AD 1598-1680), European traders became involved in the Plains-Pueblo exchange, which expanded to include manufactured goods and captives. By the late colonial period (AD 1680-1821), Europeans, mestizos, and Plains Indians actively traded livestock, slaves, and manufactured goods across the New Mexico-Plains boundary. The colonial adoption and infiltration of existing exchange networks transformed indigenous economic systems in the Southwest and in other colonized areas.

**Jennings, Justin (Franklin and Marshall College) and Yopez Alvarez, Willy**

[68] *In the Shadows of Wari: Results of the 2005 Excavation Season at the Site of Collota in Southern Peru*

This talk presents the results of excavations at the Wari influenced site of Collota in the Cotahuasi Valley of southern Peru. Using architectural, artifactual, paleobotanical, and bioarchaeological data, this presentation will briefly consider the relationship between the Wari state (600-1000 AD), the people who lived at Collota, and the people living in other sites in the valley. While excavations are still ongoing, this report will offer some tentative interpretations of Wari's relationship to Cotahuasi and of the nature of Wari political economy in general.

**Jennings, Thomas A. (University of Oklahoma)**

[217] *San Patrice, Late Pleistocene/Early Holocene Adaptation Along the Plains-Woodland Border*

The San Patrice point is an understudied and poorly defined style that emerges during the Early Holocene. The woodlands of Louisiana and eastern Texas have been described as the San Patrice "heartland." However, San Patrice populations also exploited plains resources and points occur to the west in Texas and Oklahoma. San Patrice thus represents a unique opportunity to investigate hunter-gatherer adaptation across multiple ecological zones during a period of extreme environmental variation. This paper compares San Patrice materials from Oklahoma with those occurring in Texas and Louisiana in order to better understand Early Holocene hunter-gatherer adaptations along the plains-woodland border.

**Jeppson, Patrice L. (SAA PEC Web Page Working Group), Malloy, Maureen (SAA), McDavid, Carol (SAA PEC Web Page Working Group) and Kwas, Mary (SAA PEC Web Page Working Group)**

[38] *Attention SAA Members! "Archaeology for the Public" Is Live on the Internet!*

The SAA, through the work of its Public Education Committee (PEC), has created a set of Web pages on the topic Archaeology for the Public. These peer-evaluated, pub friendly pages are designed to serve archaeology's many audiences – including other archaeologists looking for advice about outreach. These first 150+ pages of content (and others to follow) will form a major intersection between the discipline and both friends and foes of archaeology. Stop by this poster presentation to familiarize yourself with this SAA project and to advise the PEC Web Page Working Group about any resources you have to contribute.

**Jeske, Robert (UWM)**

[211] *Burials and Behavioral Webs: Late Woodland Lithics and Mortuary Ritual in the Mississippi River Valley of Northern Illinois*

The organization of lithic technology is conditioned by many factors other than settlement patterns, mobility strategies and raw material availability. Although sometimes acknowledged in

the literature, factors such as political economy, individual agency, warfare, religion and ideology are seldom examined in detail by lithic analysts when they seek to explain variation among stone tool and debitage assemblages. Two contemporaneous Late Woodland sites in the Mississippi River Valley of northern Illinois are compared to assess the effects of site function--habitation versus mortuary--on the production, maintenance and discard of stone tools and debris.

**Jimenez, Maximo (STRI/Universidad de Panamá)**

[102] *The Role of Fish in Subsistence and Ritual in Parita Bay, A Shallow Estuarine Embayment in Panama*

Thirty years' zooarchaeological research has documented how the pre-Columbian inhabitants of Parita Bay, in central Pacific Panama, exploited aquatic and terrestrial animals for food, materials and ritual. This poster summarizes our knowledge of fish and fishing. It relates fish abundance and diversity at sites of different ages and distances from the active shoreline to human dietary preferences, technology and exchange, and also examines evidence for the non-dietary importance of fish on the basis of iconography and mortuary data.

**Jochim, Michael (University of California, Santa Barbara)**

[199] *The Process of Agricultural Colonization*

A striking feature of the Holocene in many regions, including the Spanish Meseta, is the colonization of new areas by agricultural groups. Although there is an extensive literature on migration and colonization, little of this is specific to relatively simple subsistence agricultural groups. In order to understand the process of such colonization and perhaps ultimately to model this process, ethnographic and archaeological cases will be examined. The focus will be on the spatial and temporal patterns of the process, the criteria used for selecting new settlement locations, and the means by which these criteria are managed in decision-making.

**Joel, Emile C. [244]** see Brill, Robert H.

**Johnson, Amber (Truman State University)**

[137] *Testing Expectations for Patterns of Plant Intensification*

Implications from a theory of plant intensification are modeled using variables calculated in Binford's environmental frame of reference. The resulting expectations are mapped at global and regional scales. Archaeological data from strategically selected regions are used to test the modeled expectations under different initial conditions. Problems related to developing standardized measures of intensification, in general, and plant intensification, in particular, are discussed and directions for future research are developed.

**Johnson, Eileen [144]** see Arroyo-Cabral, Joaquin; [203] see Backhouse, Paul N.

**Johnson, Ilana (UCLA)**

[95] *The Development of Semi-Autonomous Communities during the Late Moche Period*

Several defensive communities developed in the hinterland of the Jequetepeque Valley in response to the changing physical and political environment of the Late Moche Period. Sites, like Portachuelo de Charcape, developed with walled restricted access to the settlement. The nearby center of San Jose de Moro, served as an important and powerful ally to higher status individuals at Charcape. In addition, the religious institution centered at San Jose de Moro provided an attractive ideology to groups immersed in the unstable social environment, and would have helped create a reciprocal relationship between elites at San Jose de Moro and hinterland communities.

**Johnson, James (University of Wisconsin - Milwaukee)**

[211] *The Archaeology of Death: A Student's Perspective*

Since its 1981 publication, *The Archaeology of Death* has influenced numerous scholars' archaeological investigations of mortuary practices. These scholars, in turn, have propagated the volume's influence through the supervision of subsequent generations of graduate students exploring mortuary studies in archaeology. In the following paper, I trace the impact of *The Archaeology of Death* through interviews with current graduate students and the number of its citations in recent Masters and Doctoral theses. Finally, I offer an account of the volume's influence on the direction of my own graduate research and the need I saw for a reappraisal of its content.

**Johnson, John [36]** *see* *McWaters-Bjorkman, Elizabeth*

**Johnson, John R. (Santa Barbara Museum of Natural History)**

[89] *Ethnohistorical Observations on Chumash Fishing Practices*

Journals of early explorers and visitors to the Santa Barbara Channel coastal region provide us not only with direct observation of the Chumash use of marine resources but also with data that can be analyzed to determine the relative importance of fishing to subsistence. Later, John P. Harrington collected ethnographic details from elderly Chumash Indians in the early twentieth century, including information about a canoemen's guild, "The Brotherhood of the Tomol." Using mission registers, the social relationships among the Chumash Indians who belonged to this canoemen's guild have been reconstructed, shedding light on the organization of labor among Chumash fishermen.

**Johnson, Katie [118]** *see* *Schaafsma, Hoski*

**Johnson, Matthew (University of Southampton) [180]** *Discussant*

**Johnson, Phillip (Texas A&M University), Pearl, Frederic (Texas A&M University), Eckert, Suzanne (Texas A&M University) and James, William (Texas A&M University)**

[204] *INAA of Samoan Basalt Quarries on the Island of Tutuila*

Basalt tools have long been the focus of Polynesian geochemical sourcing analysis. In that time, attempts to trace artifacts to individual Tutuilan quarries have achieved varying degrees of success. Prior to establishing a single quarry of origin, variation of quarry sources must be properly defined. In a preliminary attempt to determine in-land quarry signatures, samples from Tutuilan prehistoric basalt quarries were analyzed at the Texas A&M Center for Chemical Characterization using Instrumental Neutron Activation Analysis (INAA). In addition to material-centered sampling, basalt artifacts recovered from sites across Tutuila were also analyzed to determine their possible quarry source.

**Johnstone, Dave (Humboldt State University)**

[131] *Settlement Dynamics in the Coahuah Region of the Yucatan Peninsula*

The settlements between and surrounding the ancient Maya capital cities of Ichmul and Yo'okop experienced periods of occupation and abandonment. Viewed collectively, there is a clear pattern of population pulses across the landscape. This pattern is compared to the data from the larger centers to determine if these changes represent cycles of nucleation and dispersal, or variation in the overall population levels. Various hypotheses that might explain these changes through time are examined.

**Jolie, Edward (University of New Mexico)**

[228] *Perishable Artifacts from Cascada Seca, Eastern New Mexico*

In 2001, two burials were recovered by Southwest Archaeological Consultants, Inc. eroding from an embankment in Union County, New Mexico. The associated perishable artifact inventory, including fragments of coiled basketry, sewn twined matting, cordage, and knotted netting, provides a unique glimpse into prehistoric perishable technology at the western edge of the Southern Plains. On the basis of radiocarbon determinations and funerary offerings, the burials are suggested to have a Sopris phase (AD 1000-1250) affiliation. This presentation describes the technology of the perishable artifacts and considers them in light of a comparison with existing perishable artifact data from the Southern Plains.

**Jones, Christin (College of Wooster), Kardulias, P. Nick (College of Wooster) and Toumazou, Michael (Davidson College)**

[41] *Economy and the Rural Landscape of Central Cyprus: The Ceramic Evidence from the Malloura Valley*

Since 1990, the Athienou Archaeological Project has investigated the Malloura Valley at the edge of the fertile Mesaoria Plain. The ceramics retrieved from excavation of the Roman-Late Medieval settlement and a group of Archaic-Roman tombs in the center of the valley, and found during survey at small sites scattered throughout the project area include foreign imports, Cypriot imitations of such styles, and distinctive local wares. The pottery suggests this rural hinterland had a vibrant economy through time because of its strategic location between major polities, i.e., its peripheral position in the political system provided economic benefits.



**Jones, Emily Lena (Diné College)**[107] *Changing Subsistence and Landscape Use at Picuris Pueblo, 1440-1850*

European contact brought many changes to the New Mexican landscape, including the introduction of domesticated plants and animals with origins in the Old World. This poster investigates landscape use and subsistence at Picuris Pueblo over four centuries of social and environmental change, using data from Herbert W. Dick's excavations in the 1960s and 70s (Adler and Dick 1999). Particular attention is paid to the adoption of Old World domesticates and resulting changes in both landscape and subsistence. Environmental factors, cultural identity, and niche diversification are all considered as potential contributing factors to long-term change at Picuris.

**Jones, Eric (Penn State)**[3] *Using GIS to Explore the Relationship between Site Area and Population Size among Northern Iroquoian Groups*

Using settlement remains to estimate population size has been the most effective method for estimating North American precontact population numbers. The Northern Iroquoian "snapshot" settlement strategy provides almost ideal conditions for studying past demographic trends. This research expands on Snow's (1995) and Warrick's (1990) work by testing their proposed relationships between site area and population size. If this relationship can be further supported using GIS technology along with modern demographic theory, it will establish a link between settlement size and population size for Northern Iroquoians that will allow researchers to estimate precontact populations with little more than site area.

**Jones, George T. (Hamilton College)** [154] *Discussant*; [133] *see Craven, Sloan*; [138] *see Mickle, Caryn N.*; [138] *see Day, Mary Beth*; [138] *see Schmidt, Sarah E.*; [44] *see Schaaf, Lisa N.*

**Jones, Jennifer (University of Minnesota Duluth)**[80] *Building Settlements, Grinding Cereals and Storing Food: Village Life after Urban Collapse in the Northern Jordan Valley*

A period of regional urban abandonment followed the first urban florescence in the southern Levant. Excavation of the Early Bronze IV period (2300-2000 BC) village of Dhahrat Umm al-Marar in the northern Jordan Valley, Jordan, revealed a 1 ha agricultural village with domestic structures and an encircling wall. Although floral and faunal preservation was poor, abundant boulder and slab mortars attest to the processing of cereal grains. Comparing the percentage of serving, storage and food preparation vessels reported from other sites showed that residents at Umm al-Marar used fewer food preparation pots and more storage vessels.

**Jones, John** [87] *see Beach, Timothy*

**Jones, John G. (Washington State University) and Blake, Karry L. (Washington State University)**[9] *Settlement and Agriculture in the Soconusco: Pollen Evidence of Human Activity on the Pacific Coast of Chiapas*

The analysis of pollen from sediment cores collected along the coast of Chiapas has greatly augmented the record established through prior phytolith studies. In particular, evidence for human settlement, forest clearing and field maintenance, and site abandonment are usually illuminated in the pollen record. Ample radiocarbon dates of significant events recorded in these cores provide a temporal framework for human activity in this region. These data, when examined with comparable pollen studies from coastal Guerrero and Guatemala are beginning to paint a detailed picture of settlement patterns, agricultural practices and human impact in southwest Mexico and Guatemala.

**Jones, John G.** [48] *see Dunning, Nicholas P.*

**Jones, Kevin (University of Arizona) and Hodgins, Gregory (NSF-Arizona AMS Facility)**[44] *Carbon Extraction by Plasma Oxidation for Radiocarbon Dating*

A cold oxygen plasma converts organic carbon to CO<sub>2</sub>, while sample temperature remains below the decomposition temperatures of carbonate and oxalate minerals. Rowe (Texas A&M University), Steelman (University of Central Arkansas), and colleagues have pioneered plasma oxidation as a way to extract organic carbon from rock art paints and fragile artifacts for radiocarbon dating. We have constructed a plasma oxidation apparatus and initially aim

to 1) investigate rates and products of plasma oxidation of organic molecules and carbon-containing minerals, 2) compare plasma oxidation to typical sample treatments for radiocarbon dating, and 3) replicate some of Rowe and Steelman's findings.

**Jones, Robert [6]** *see Peacock, Evan*

**Jones, Sharyn (University of Alabama, Birmingham)**

[89] *Ethnographic Perspectives on Fishing and Community Social Dynamics in the Pacific Islands*

This paper begins by summarizing key points from current literature regarding social complexity and subsistence in the Pacific Islands. Anthropological theories generally assume that reliable food resources, especially abundant and diverse marine fauna, support increased social complexity. Conversely, I argue that a decrease in the reliability of fish resources may produce increasingly complex social interactions. Importantly, the way anthropologists measure "social complexity" is primarily based on the presence and intensity of public social institutions, such as political chiefdoms. However, the anthropological idea of "complexity" does not necessarily apply to every day interactions within communities, including family level and interpersonal relations. Community interactions including tribute, the division of labor, the division of food resources, and food sharing are extremely complicated, and become increasingly so when food shortages exist or when sustainability decreases. Specifically I discuss my own data and ethnographic/ethnohistoric case studies related to fishing in Fiji and Polynesia. Finally, I discuss the relevance of this ethnographic data to archaeology.

**Jones, Stephen (University of Alabama -Moundville), Schneider, Kent A. (USDA-Forest Service), Goodman, Dean (Geophysical Archaeometry Laboratory), Pantel, Gus (Pantel del Cueto Associates) and Garrison, Ervan (University of Georgia)**

[22] *Ground Penetrating Radar -- Does One Size Fit All?*

The recent explosion of ground penetrating (GPR) use by archeologists has been made possible by new push-button digital GPR technologies, significant advances in 2D and 3D GPR imaging software, and the relatively inexpensive costs of both. But just how "good" for archaeology is the imagery produced and, more importantly, of the interpretations made from the imagery? What happens if it doesn't work and you don't know the difference? For archeologists, historians, contractors, and contracting officers, this paper explores the rise in use of GPR in archeological applications, the opportunities and pitfalls of GPR in the archeological profession, and what you need to know to make it work. Some examples of the good, the bad, and the ugly will illustrate the talk.

**Jordá Pardo, Jesús [199]** *see Cacho, Carmen*

**Jordan, Alissa (Indiana University, Bloomington)**

[194] *Salt Use in Rites of Transition and Its Subsistence Correlates*

The objective of the research was to examine the socio-cultural correlates of salt use in rites of transition. The data and sample groups were compiled primarily from the HRAF, including historical documentation of transitional rites involving salt use. Nearly thirty percent of all of the cultures in the eHRAF ethnographic database utilized salt in rites of transition. The results indicate a strong link between low-sodium subsistence agriculture and salt use in rites of transition, highlighting long-distance salt trade systems between cultures involved.

**Jose, Iriarte [113]** *see Marozzi, Oscar*

**Joseph, J. W. (New South Associates)**

[176] *Los Caficultores de Maraguez: The Landscape, Technology and Social Structure of Coffee Agriculture in the Cerrillos Valley, Ponce, Puerto Rico*

Sites associated with coffee agriculture in the Cerrillos Valley of Puerto Rico were documented in 1986 as part of the NHPA Section 106 mitigation for the Cerrillos Reservoir project. This work was completed for the US Army Corps of Engineers, Jacksonville District. Documentation of these sites was conducted to Historic American Engineering Record (HAER) standards with an emphasis on recording the technology of several properties, which ranged from small farms (fincas) to larger haciendas and production facilities. This paper looks at the landscapes, technology, and social organization of coffee agriculture as historically practiced in Puerto Rico's mountainous interior.

**Joslin, Terry (University of California, Santa Barbara)**

[89] *Other Fish to Fry: Reconstructing Late Prehistoric Fisheries and Their Social Context Along the Central California Coast*

Under the shadow of the sophisticated fishing culture that characterizes the Santa Barbara Channel, the central California coast is often overlooked as a region that can contribute to understanding maritime adaptations. New information from the San Simeon Reef during the Late Prehistoric, however, indicates an increased dependency on fish over time and provides insights into social responses. This research reconstructs fishing technology and social organization prior to Spanish contact. By at least 1000 AD occupants increasingly turned to fishing to maximize littoral foraging productivity, while buffering against risks associated with environmental fluctuations and changes in logistic priorities.

**Joyce, Arthur (University of Colorado, Boulder)**

[54] *The Afterlife of Monte Albán: Postclassic Ritual Practices on the Main Plaza*

Despite the collapse of Monte Albán as a political center, Early Postclassic people marked the site as a sacred place by leaving ritual offerings in Classic-Period tombs and in Temple-Patio-Altar complexes. The consistency of the content and context of offerings suggest that they were based on social memories of the earlier significance of these places. During the Late Postclassic the interment of nobles in reused tombs, the deposition of ritual offerings, and the construction of a fortress brought together people from multiple communities, mediating interpolity conflict and reproducing a broader social identity that reflected common historical ties to Monte Albán.

[14] *see Mueller, Raymond*

**Joyce, Rosemary (University of California, Berkeley)**

[111] *When the Flesh is Solid but the Person is Hollow Inside: Formal Variation in Hand-modeled Figurines from Formative Mesoamerica*

Hand-modeled ceramic figurines are the earliest preserved medium of representation of the human body in Mesoamerica. They predate our earliest evidence of shaping the corporeal body in life and death. I argue that the shaping of corporeal bodies and of figural bodies were linked recursively, and together were practices of embodiment. From this perspective, the formal characteristics of figurines--the choice to make a thin skin enclosing a hollow interior, or to shape layers of specific detail around an undifferentiated solid core-- are not simply iconic, but indexical of the experiences and understandings of the living bodies of figurine makers.

[147] *Discussant*; [86] *see Henderson, John S.*

**Judd, Margaret A. (University of Pittsburgh), Irish, Joel (University of Alaska, Fairbanks) and Froment, Alain (Musée de l'Homme, Paris)**

[10] *Dying to Serve: Human Sacrifice during the Classic Kerma Period*

The royal cemetery of Kerma (1750-1550 BC), Upper Nubia, featured tumuli bisected by mass inhumation corridors and a central royal burial chamber. Though the corridor burials have been attributed to human sacrifice, no bioarchaeological investigation has occurred to date that confirms this assumption. Our study revealed a comparable trauma profile for both "corridor" and "non-corridor" samples, with no perimortem trauma among the former. Likewise, statistical analyses of 13 cranial measurements established the phenetic similarity of the samples. The "corridor" people who were selected or volunteered to accompany their king to his afterlife reflected the composition of Kerma society.

**Julien, Michele (CNRS FRANCE) and Lavalée, Daniele (CNRS FRANCE)**

[69] *Quebrada de los Burros (Peru) Biogeographical Adaptation and Subsistence Strategies of Fishermen During Early and Middle Holocene*

The Archaic fishermen-gatherers campsite at QLB was occupied between 10,000 and 6,000 BP, in the course of a calm and wet climatic phase. The inhabitants relied intensively on ocean resources complemented by terrestrial hunting. Broad horizontal excavations revealed seven occupation levels that contained accumulations of food waste, living floor features and specialized activity areas. Abundant lithic material and bone instruments indicate sophisticated fishing and foraging techniques. To resolve the problem of seasonal or year round occupations and the possible origins of the human groups, various researches have been initiated: isotopic and sclerochronological analyses, determination of lithic raw material sources.

**Julien, Michele** [53] *see Lavalée, Daniele*

**Julig, Patrick (Laurentian University) and Long, Darrel (Earth Sciences, Laurentian University)**

[74] *Quarrying Behavior and Facies Selection of Bar River Formation Quartzite at the Sheguiandah Paleo-Indian Site*

Characterization of Bar River Formation quartzite (quartzarenite) from the Sheguiandah Paleo-Indian site indicates the facies quarried were glassier and more recrystallized, compared to more strained and fractured materials at nearby outcrops. The reduction strategies employed to obtain large biface preforms and blade-like flakes will be illustrated for Sheguiandah, compared to several other quarry sites and assemblages on the same formation. The massive, less strained, and glassier Sheguiandah facies may have been difficult to quarry, but necessary to obtain adequate core sizes for subsequent biface preform and blade blank production.

**Jurgens, Christopher J. (Texas Water Development Board/UT-Austin)**

[144] *The Fish Fauna from Arenosa Shelter (41VV99), Lower Pecos Region, Texas*

Salvage excavations (1965-68) at Arenosa Shelter in the arid Lower Pecos cultural region yielded over 47,000 faunal specimens and 1,000 bone artifacts. This large Pecos River terrace site is near the Rio Grande confluence and international border. Recent research studied the subsistence and bone technology practices of prehistoric residents. Small to large fish remains formed a significant minority of the faunal sample. The remains provided evidence of previously undocumented capture and carcass processing techniques used during the Middle to Terminal Late Archaic. Fish skeletal material also entered the region's bone technology to be used in specific, limited roles as tools.

**Kadish, Lesley (The 106 Group Ltd.)**

[250] *Striking It to the Corn: Artifacts of Minnesota's Earliest Baseball Clubs*

The St. Croix Base Ball Club of Stillwater, Minnesota began as a farm team in 1867 and played on the same diamond for over 75 years. Despite their small size and peripheral locality, the St. Croix Club attempted to mimic their larger New York counterparts in both rule and equipment advancements. This paper examines the baseball artifacts of the early St. Croix league, and takes an ethnographic approach to their renaissance in Stillwater's contemporary recreation of the antiquated team: the St. Croix Vintage Base Ball Club.

**Kaeding, Adam (Boston University)**

[131] *Ichmul: A Study of Congregacion Settlement Patterns on the Frontier of Spanish Control*

The Spanish policy of congregacion, or forced population nucleation, had widespread cultural implications during the colonial period. Unfortunately, few archaeologists have investigated the implementation of this policy or the indigenous reaction it elicited. This paper analyzes the frontier congregacion center of Ichmul in its regional context indicating that settlement decisions made by the affected population mimic patterns seen elsewhere in the Yucatan. Further archaeological evidence suggests that this pattern was maintained regardless of the minimal Spanish presence. This analysis of Ichmul, therefore, improves our understanding of colonial interaction on the frontier of Spanish control.

**Kahinju, Samuel [150] see Dickson, D. Bruce**

**Kalchgruber, Regina [162] see Bisson, Michael**

**Kamenov, George D. [132] see Gilli, Adrian**

**Kandel, Andrew (University of Tübingen), Dietl, Holger (University of Tübingen) and Conard, Nicholas (University of Tübingen)**

[59] *Out of the Caves and Beyond the Middens: New Results from Open-Air MSA Sites in Western Cape, South Africa*

Open-air localities at Geelbek and Anyskop offer new insight into the behavior of MSA hunter-gatherers. The deflation bays within these mobile dunes display large-scale spatial patterning of lithic artifacts and faunal remains. By analyzing lithic raw material units we reconstructed patterns of selection, production, use and discard of artifacts. The results reveal that MSA hunter-gatherers employed diverse planning strategies of raw material exploitation, transport, technology and site use. Stone points and segments suggest that hunting played an important role in the activities documented. The low number and heterogeneity of stone artifacts suggest that people of the MSA were highly mobile.

**Kane, Lowell (Texas A&M University)**

[75] *Shared Iconography: A Comparison of Classic Mimbres and Mesoamerican Imagery on Pottery*

Comparisons of iconography have been used by anthropologists and art-historians to support theories of shared ideas, beliefs, and identity between cultures. Here, imagery on Classic Mimbres (1000-1150 AD) painted bowls and contemporaneous Mesoamerican pottery are analyzed to determine whether or not a relationship between design elements exists, and if so, the extent of shared concepts. In order to examine this connection, elements from both figurative and geometric patterns, symmetry, and overall motifs are considered.

**Kang, Bong W. (Gyeongju University)**

[63] *Determining Societal Typology Based on Mortuary Analysis in the Silla Kingdom, Korea*

This paper examines approximately when the state-level society appeared in the Silla Kingdom in ancient Korea. According to the historical accounts appearing in the Samguk sagi, one of the oldest extant historical documents in Korea, it can be argued that the Silla Kingdom witnessed a centralized government organization some time during the reign of King Naemul (356-402 A.D.). By using some other literary sources available, this proposition will be tested against burial data, in particular, burial dimensions in association with energy expenditure and their relation to the presence of sumptuous mortuary offerings.

**Kanne, Katherine (Northwestern University)**

[240] *A Cross-Cultural Study and Its Implications for the Interpretation of Dogs in Archaeological Contexts*

A cross-cultural analysis based on a large world-wide sample including foragers, nomadic pastoralists, and horticultural and agricultural societies was carried out to evaluate several hypotheses concerning human-dog interactions and relationships. The presentation describes how these data and analyses may throw light on the interpretation of dog remains in archaeological contexts.

**Kansa, Eric (The Alexandria Archive Institute) [184] Discussant**

**Kansa, S.W. [132]** *see* Oliver, J.S.

**Kansa, Sarah (The Alexandria Archive Institute), Campbell, Stuart (University of Manchester), Carter, Elizabeth (University of California, Los Angeles) and Gauld, Suellen (Santa Monica Community College)**

[215] *Whose Bones Are Those?: Human and Animal Processing in the "Death Pit" at Domuztepe, a Halaf Village in South-Central Turkey*

Previous studies of a large pit at the mid-6th millennium BCE settlement at Domuztepe, filled predominantly with fragmented and commingled human and animal bones, have established that the animal bone assemblage is characterized by specific features not found in the daily refuse from the rest of the site. The present study seeks further understanding of the "Death Pit" comparing element preservation, degree of fragmentation, breakage patterns, and demographics within the animal and human bone assemblages. A GIS model provides insight into the depositional sequence of the Death Pit. Several interpretive possibilities are presented, from ritual activity and social integrative strategies to possible expressions of ritualized violence.

**Kaplan, Jonathan (University of New Mexico)**

[157] *Recent Research at Chocóla, a Major Regional Center in the Seminal Southern Maya Zone*

Research has neglected the Southern Maya Zone, long considered seminal because of the early appearance of Maya writing, urbanism, and core Maya ideology. Chocóla lies in the heart of the SMZ, in the Guatemalan piedmont. Culture history is obscure for this region. Processes such as ethno-linguistic interaction (e.g., Maya-Mixe-Zoque), great and far-flung trade enterprises, and cores and peripheries in a (Mesoamerican) world system, have been speculated to have underlain the development of high social and cultural achievements but lack formal testing. Our research looks at hydraulics and intensive cacao cultivation as important material factors behind high developments in the SMZ.

[157] *see* Kraemer, Anne

**Kappers, Michiel [52]** *see* Fitzpatrick, Scott M.; [84] *see* Kaye, Quetta

**Kardulias, P. Nick (College of Wooster)**

[188] *Pastoralism as a Strategy for Exploiting Marginal Landscapes in the Ancient and Modern Aegean*

Surface survey on arid islands in the Aegean region has revealed a pattern of heavy exploitation of marginal zones in the Late Roman (AD 300- 700) and Mycenaean periods (1600-1200 BC). Ethnoarchaeological study of a herding family on Dokos provides further important insights into strategic planning in an austere environment where people have coped successfully with the lack of fresh water. Contrary to conventional belief, the evidence suggests that people exploited these dry islands in prosperous periods, and not under duress, indicating a detailed knowledge of the landscape.

[41] see Jones, Christin; [43] see Acton, James; [5] see Stotts, Rhian;

**Karkanias, Panagiotis [59] see Marean, Curtis**

**Kasper, Kimberly [5] see Hart, Siobhan**

**Kaufmann, Kira (University of Wisconsin, Milwaukee)**

[101] *Creating Group Connectivity and Identity Using the Landscape: Effigy Mounds During the Late Woodland*

Previous research of Effigy Mounds has focused more on mound shape than on mounds as artifacts that are part of a larger Late Woodland period system of cultural development. It is misleading to lump all Effigy Mounds together in one category based on the criteria of shape. This paper explores Effigy Mounds as artifacts and how Effigy Mounds enhanced the social complexity of the people who built them. In examining the connection between function of mounds and the use of landscape, a model for Effigy Mound location, why Effigy Mounds exist, and how they may have performed in transmitting cultural philosophies is presented.

**Kay, Marvin (University of Arkansas)**

[187] *It's the Water, Stupid! Why People Were Where They Were*

GIS analysis of shovel tests within randomly placed 30 m sample units for about 2.5 percent of the areas of two national parks documents a statistically significant, conspicuous relationship between proximity to water and prehistoric land use for both Pea Ridge National Military Park, Arkansas and Wilson's Creek National Battlefield, Missouri. While not unexpected, this analysis shows recurrent usage of areas within 200 m of a stream, and a single land use strategy based on the principle of least effort to satisfy daily physiological needs.

**Kay, Michael (University of Florida) and Wake, Thomas (The Cotsen Institute of Archaeology at UCLA)**

[231] *Zooarchaeological Analysis of Vertebrate Remains from Sitio Drago, Bocas del Toro, Panama*

An examination of the vertebrate fauna recovered from recent excavations at Sitio Drago, Bocas del Toro, Panama indicates that the site's occupants relied heavily on local species of animals as tool and food resources, particularly those obtained from nearby Caribbean waters. The diverse zooarchaeological inventory reflects the wide variety of vertebrate resources available and the array of habitats exploited by the site's occupants. Data from this study provides insight into changing subsistence strategies, resource management, and catchment areas at pre-Columbian Sitio Drago and in greater Bocas del Toro Province, Panama.

**Kaye, Quetta (Institute of Archaeology, University College London, UK), Fitzpatrick, Scott M. (NC State University) and Kappers, Michiel (In-Terris Site Technics)**

[84] *Carriacou's Position in Southern Antillean Prehistory*

The island of Carriacou in the southern Grenadines is a small, but archaeologically rich island with deposits dating from AD 400-1400. Intensive survey and excavation at the site of Grand Bay has revealed a wide array of artifacts, many of which appear unique or are known to be exotic. The analysis of these artifacts, zooarchaeological remains, human burials, and an extensive regime of 14C dating help to clarify how Carriacou fits into the broader realm of Caribbean prehistory.

**Kaye, Quetta [52] see Fitzpatrick, Scott M.**

**Kealhofer, Lisa (Santa Clara University) and Grave, Peter (University of New England)**

[232] *Iron Age Economies of Central Anatolia*

The Iron Age in central Anatolia was a period of rapid cultural transformation and expanding

economic relations. Phrygia, from its capital at Gordion, is seen as dominating the region, although its boundaries and political economy are ill-defined. Ceramic characterization (INAA) of trade ceramics from sites across the region provides an independent measure of the extent and timing of Iron Age political and economic changes. Results from analyses of Gordion demonstrate a complex sequence of shifts in political and economic relationships. Comparison with analyses from contemporary sites suggests Gordion played a central role in linking both inland and coastal polities.

**Kealhofer, Lisa [232]** *see* Grave, Peter

**Keegan, William (Florida Museum of Natural History)**

[110] *From Ceramic Sociology to Settlement Pattern Sociology: Broken K Meets the Taino and Lapita*

Jim Hill believed that if we ask the right questions, make sound assumptions, and collect and process the necessary data then we can reconstruct all aspects of past societies. His study of social organization at Broken K Pueblo was revolutionary. Following his example we looked for the social factors that influenced Lucayan Taino settlement patterns, and concluded that the Taino were an avunculocal chiefdom. Our work influenced Per Hage's restudy of social organization in prehistoric Oceania. In memory of Jim and Per, I offer a new interpretation for the "long pauses" observed in the Caribbean and Polynesia.

**Keegan, William [176]** *see* Sara, Timothy

**Keeley, Lawrence H. (University of Illinois at Chicago)**

[206] *How Did Farming Come to Belgium*

Seven thousand years ago, a new way of life appeared on the loess lands of Belgium--a complete change in every archaeologically visible aspect of culture. These novelties arrive as an integrated package--the LBK or Linear Pottery culture. The Belgian LBK shows no cultural features characteristic of the preceding Final Mesolithic hunter-gatherers. The latter's way of life vanished in those area occupied by LBK farmers. The possibility that the Mesolithics died of new epidemic diseases, associated with domesticated animals and the forest clearance, is discussed.

[61] *see* Golitko, Mark

**Keene, Deborah (University of Alabama) and May, J. Alan (Schiele Museum of Natural History)**

[203] *Determining the Origin of Copper Artifacts from North and South Carolina: An Energy Dispersive X-Ray Analysis*

The copper artifacts for this study come from LaFar site, Gaston County, North Carolina and Santa Elena, Paris Island, South Carolina. The purpose of the study was to determine if the artifacts were Spanish or Native American made and, if possible, to determine the source of the copper. Artifacts were examined with energy dispersive x-ray analysis, a non-destructive technique to determine elemental composition. The analysis may determine whether the samples were made of pure native copper or a European smelted alloy. Some additional elements may be identified, but not in sufficient quantities to determine the source of the copper.

**Keene, Joshua [44]** *see* Galm, Jerry

**Keenleyside, Anne [132]** *see* Healy, Paul F.

**Kékegyi, Dorottya [153]** *see* Patel, Nisha

**Kellett, Lucas [51]** *see* Bauer, Brian S.

**Kellner, Corina M. (University of California, San Diego) and Schoeninger, Margaret J.**

[10] *The Impact of Imperial Rule on Local Diet: Stable Isotope Analysis of the Prehistoric Nasca during Wari Hegemony*

The Nasca of south coastal Peru were conquered by the Wari empire at the beginning of the Middle Horizon (AD 750-1000), but the nature of this relationship is unclear. To determine the impact of this conquest on the diet of local Nasca peoples, we analyzed stable carbon and nitrogen isotope ratios of human bone from individuals living before and during imperial authority. Stable isotope data indicate that intensification of maize agriculture, a widespread occurrence

with imperial conquest, did not occur. These results may suggest that the Nasca held a special privileged position within the Wari empire (Menzel 1964).

**Kelly, Harold (Archeological Museum Aruba) and Van Gijn, Annelou (Artifact Laboratory, Leiden University)**

[16] *Application of Use Wear Analysis in the Determination of Coral Tools*

The paper focuses on three occurring coral species used as tools that formed part of the tool assemblage of the ceramic inhabitants of Anse à La Gourde which consisted of flint, stone shell and coral. These coral artifacts were categorized as tool by means of modified shapes, occurring residues and use wear traces. An extensive experimental program which included experiments on contact materials such as shell, clay, bone, plant material, different types of wood and seeds was carried out with the replicated coral tools in order to set up a reference collection to which the artifacts could be compared. The comparison of the use wear traces on the artifacts with the experimental use wear traces brought forth positive results which gave insights about the types of materials on which the coral tools were used by the inhabitants of the Anse à La Gourde site in Guadeloupe.

**Kelly, Harold [126] see Ruiz, Arminda**

**Kelly, Jennifer (Coastal Environments, Inc.), Tykot, Robert (University of South Florida) and Milanich, Jerald (Florida Museum of Natural History)**

[242] *The Use of Maize in Peninsular Florida: Stable Isotope Analysis*

It has been hypothesized that the Native Americans of peninsular Florida adopted, and developed characteristics of complex societies without adopting agriculture. However, and contrary to most archaeological evidence, the results from this research suggest that maize was a part of the diets for groups from inland Florida, and prehistoric Gulf Coast populations as early as AD 500-700. Stable isotope analysis was performed on more than 100 individuals from Florida, dating from the Archaic (2000 BC) through the Late Caloosahatchee period (after AD 850). Nine archaeological sites were analyzed in this study, and represent changes in subsistence practice over time.

**Kelly, John (Washington University at St. Louis) and Brown, James (Northwestern University)**

[205] *The Importance of Being Specific: Theme and Trajectory in Mississippian Iconography*

Southeastern iconography of the Mississippian Period has had a difficult time shedding the lingering perception that the so-called similarities with Mesoamerican depictions are indicative of an ultimate derivation from that continental center. Superficial similarities between images of each region notwithstanding, an examination of the stylistic histories of relevant Mesoamerican and Mississippian regions reveals a strong level of independent development in each. Left for further analysis, however, are specific parallels in thematic content, which for the most part have escaped attention. A satisfactory account of these will require an adequate handle on the social, economic and cultural contexts of this content.

**Kelly, Katherine [36] see Vargo, Barbara**

**Kelly, Kenneth (University of South Carolina) and Hauser, Mark (DePaul University)**

[52] *Cabotage or Contraband: Compositional Analysis of French Colonial Ceramics*

There is a considerable literature that explores the significance of low fired earthenware production as a component of African Diaspora identity creation and maintenance both in the West Indies and in the American Southeast. Very little analysis has gone into understanding the role of industrially produced ceramics in the Caribbean. In this paper we discuss compositional analysis of archaeological ceramics and wasters recovered from historic kiln sites on the islands of Dominica, Martinique, and the Guadeloupe Archipelago, and to compare them with ceramic sherds from excavated domestic contexts elsewhere on these islands to reconstruct trade and exchange patterns during the French colonial period. The results from these analyses not only point to expected routes of trade but also routes which contravened colonial boundaries.

**Kelly, Kenneth [1] see Hauser, Mark**

**Kelly, Lucretia (Washington University-St. Louis) and Fritz, Gayle (Washington University-St. Louis)**

[178] *Big Bash in the Bottom: Integrating Animals and Plants from Cahokia's Sub-Mound 51*

Extraordinarily preserved organic remains excavated from the stratified sub-Mound 51 borrow



pit in the center of the Cahokia site afford a rare opportunity to integrate a number of unique data sets. Excavated in the late 1960s, the zooarchaeological and archaeobotanical assemblages posed several analytic and quantitative challenges. Viewed separately or from different theoretical points of view, very different interpretations could be formed. Their analytic integration in light of current knowledge of the Cahokia polity, however, informs our understanding of a major event, affording insight into the social, economic, and ritual underpinnings of Cahokia's early development.

**Kelly, Robert L. [135]** *see Laughlin, John P.*

**Kelly, Sophia (Arizona State University)**

[103] *The Role of Glazewares in Pueblo IV Period Zuni Ritual Activities: A Stylistic Analysis of Heshotauthla and Kwakina Polychromes*

Heshotauthla and Kwakina Polychromes were the two primary decorated ceramic types in the Zuni region of New Mexico during the Pueblo IV period. This study examines their roles in integrative ritual based on expectations concerning stylistic consistency and frequency of exchange. Conclusions highlight the possibility that only one of the two stylistically similar types was associated with large-scale ritual activities.

**Kemp, Brian (University of California, Davis), Monroe, Cara (University of California, Santa Barbara) and Smith, David (University of California, Davis)**

[141] *Ancient DNA 101: A Guide for Archaeologists*

The study of DNA extracted from ancient remains is an exciting new avenue of research that can provide novel evidence for addressing questions about prehistory. Here we explore how ancient DNA (aDNA) differs from modern DNA, sources from which aDNA can be extracted, and review previous applications of aDNA (with a focus on the Americas). As the study of aDNA is methodologically challenging, analyses are costly. We offer practical, cost/benefit advice to archaeologists who are considering DNA analysis. Topics covered range from sample preparation that minimizes contamination to expectations that archaeologists can have of an aDNA researcher.

**Kemp, Brian M. [141]** *see Monroe, Cara*

**Kempton, Karen (Wyoming Army National Guard) and Fisher, Conrad (Northern Cheyenne Tribal Historic Preservation Office)**

[97] *Many Voices: Seeking Tribal Perspectives and Partnerships at Camp Guernsey, Wyoming*

Camp Guernsey is a military training area situated on 42,000 acres in eastern Wyoming. Archaeological inventories have recorded over 700 sites including rock shelters, pictographs and petroglyphs, stone circles, and lithic procurement quarries. The Wyoming National Guard recognizes the preservation of sacred sites is critical to Native Americans for the continuation of cultural and spiritual lifeways. Only by listening to the many voices can the significance of the archaeological resources be determined. The WYARNG has established an American Indian consultation program to seek tribal perspectives and partnerships in the safeguarding of traditional cultural places while meeting the mission of training soldiers.

**Kendall, Aaron (CUNY Graduate Center)**

[252] *Material Culture and Viking Age Trade: Comparison of Artifacts from Two Icelandic Farm Sites*

By analyzing and comparing the material culture from Hofstadir and Sveigakot, two Viking Age farm sites in north central Iceland, two competing hypotheses regarding North Atlantic trade are addressed. Based on the quantities of imported material, the temporal change in composition of the material assemblages, as well as considering the faunal analysis and fuel resource utilization for both farms, it appears that the data supports the notion that trade between this region of Iceland and continental Europe was minimal during the Viking Age.

**Kennedy, James H. [6]** *see Wolverton, Steve*

**Kennedy, John [105]** *see Kinneer, Christopher*

**Kennett, Douglas [44]** *see Culleton, Brendan; [9]* *see Voorhies, Barbara*

**Kennett, Douglas J. (University of Oregon) and Voorhies, Barbara (University of California, Santa Barbara)**

[9] *Archaic Period Shellfish Harvesting Strategies on the Pacific Coast of Southern Mexico*

Oxygen isotopic analyses of marsh clams from the littoral site of Tlacuachero indicate a shift in exploitation from the dry to wet season through the Late Archaic Period (~5,500-4,000 BP). This shift is coincident with the appearance of maize phytoliths at 5,000 BP. We have interpreted this change as reflecting scheduling conflicts between maize cultivation, particularly clearing forest, and wild resource use in the littoral zone during the dry season. This hypothesis is tested with oxygen isotopic analysis of marsh clams from El Chorro, a Late Archaic Period shellmound with deposits dating to between 4,400 and 4,200 BP.

**Kenworthy, James [212]** see Billman, Brian

**Kepecs, Susan (University of Wisconsin-Madison)**

[216] *An Economic History of Yucatan Salt: Historical Archaeology at the Juncture of Colonialism, Capitalism, Eurocentrism and Modernity*

The northeast corner of Yucatan state is ideal for examining the longue duree history of capitalism, since it contains the richest salt source in Mesoamerica – a resource exploited at large, extrahousehold scales since the onset of the Postclassic era. Because written history is elite-biased, and class division is the essential feature of capitalism, this story can only be told in full if archaeology is part of the equation. I use multiple lines of evidence to reveal radical breaks and long-term continuities in Chikinchel's salt economy as it weathered the multiscalar economic processes of colonialism and independence.

[112] *Discussant*

**Kern, Dirse [90]** see Woods, William

**Kersey, Kimberly (Texas State University)**

[174] *Emerging Elite Economies: A Diachronic View of Obsidian Trade in the Mesoamerican Formative Period in the Belize Valley*

Trade and exchange networks in ancient Mesoamerica were composed of dynamic, interlaced systems defined by a variety of relationships among people from many regions. The diversity and density of "exotic" materials recovered from ritual contexts, dating to the Formative period at the ceremonial centers of Blackman Eddy and Cahal Pech, indicate that interactive spheres of trade and exchange of ritual paraphernalia were well-established by this time. With the data acquired from past and recent excavations, and through new and refined techniques of sourcing materials, it is possible to reconstruct trade routes which can be used to examine ancient ritual economies.

[174] see Garber, James

**Keyeux, Genoveva (Universidad Nacional de Colombia)**

[34] *Rutas Migratorias Hacia América del Sur: Indígenas de la Región Andina de Colombia*

Análisis filogenéticos de estudios moleculares muestran la estrecha relación de grupos Amerindios de la región andina de Colombia con los de Centro América, mientras que los grupos indígenas del Sur y del Oriente de Colombia están más emparentados genéticamente con los grupos Suramericanos. Estos resultados apuntan a la existencia de dos vías de desplazamiento desde Norte América. Los análisis muestran una correlación genética, geográfica y lingüística entre grupos Amerindios colombianos que están localizados a cada lado de los Andes.

**Keyser, James D. [196]** see Greer, Mavis

**Khan, H.S. [63]** see Blickstein, J.I.B.

**Khatchadourian, Lori (University of Michigan)**

[233] *Beyond Kings and Capitals: Toward an Archaeology of the Achaemenid Empire*

In the mid-first millennium BC, the Achaemenid Empire, centered in Iran, governed a vast territory, from Central Asia to the Mediterranean. Little is known about the political and social organization of this diverse polity, which is often reductively characterized as a dichotomous system of omnipotent kings and subject vassals. Established conceptions of the Achaemenid Empire are a consequence of agendas set by elite voices, whether Greek authors or the propagandistic iconography of Achaemenid royals. Archaeological approaches have been few. This paper advocates an archaeology of the Achaemenid empire at local levels, using as a case study recent research in Armenia.

**Kiahtipes, Chris [105]** *see Grim, Todd*

**Kick, Maureen S. (Hunter College, CUNY), Miller, Beth M., Sanger, Matthew C. (American Museum of Natural History), Santoianni, Kimberly and Semon, Anna M. (American Museum of Natural History)**

[79] *Turtle. It's What's for Dinner*

Terrestrial and sea turtles were used prehistorically as a food resource throughout the Southern Atlantic Region. Turtle remains recovered from recent archaeological excavations on Saint Catherine's Island, Georgia suggest that this wild resource may have played a role in the subsistence strategy of the island's residents. This poster will explore the ways in which the island's residents exploited this natural resource and will compare and contrast these findings with remains recovered from other similar sites throughout the Southern Atlantic Region, examining the consumption of turtles from a local and regional perspective.

**Kidder, T.R. (Washington University in St. Louis)**

[242] *Inferring Complexity from Very Rapid Construction of Mound A at Poverty Point, NE Louisiana*

Archaeologists recognize pre-modern hunter-fisher-gatherer behavior is not simple. Still, dimensions of complexity among people practicing these subsistence modes are poorly understood or exaggerated. Excavations in Mound A at Poverty Point indicate this large earthen mound was built very rapidly, perhaps in less than a year. This indicates pre-agricultural people were congregating in large populations and allows us to infer social, economic, and political organization was well developed and possibly centralized. The scale and speed of mound building belies the notion that this mound was erected over a long period of time by people with little or no formal social organization.

[242] *see Adelsberger, Katherine A.*

**Kilby, David (University of New Mexico/e2M), Gallison, James (engineering-environmental Management, Inc.(e2M)) and Herrera, Roberto (University of New Mexico/e2M)**

[72] *Demolition Road: When is a Clovis Site?*

The Demolition Road site in the Middle Rio Grande Valley of New Mexico was discovered in 2004 when a Clovis point fragment was found on the surface of a previously recorded lithic artifact scatter of unknown age. The assemblage at the site exhibits some characteristics consistent with Clovis technology and others not traditionally associated with Clovis. If the entire site can be linked to Clovis, it may provide new insights into the flexibility of Clovis technology. This paper discusses the site assemblage and geomorphology, and the challenges of assigning cultural affiliation based upon limited, and perhaps atypical, assemblages.

**Kilby, David [198]** *see Ramirez, Nicole*

**Killacky, Kathryn [178]** *see Moore, Katherine M.*

**Killion, Thomas (Wayne State University)**

[23] *An Olmec Context: The Hueyapan Region of Southern Veracruz, Mexico*

Formative period research in southern Veracruz and Tabasco has begun to focus on variation in patterns of subsistence, settlement, economy and political organization that comprised the old "heartland" of Olmec civilization. The Hueyapan region provided alluvial, piedmont and mountain landscapes for human occupation documented as early as the middle of the 2nd millennium BC. Formative period settlement within the region represents one variety of Olmec adaptation within the heartland. The paper underscores the need to "break apart" the conventional monolithic notion of Olmec through an assessment of the interplay of local and regional contexts in the southern Gulf Coast lowlands.

**Killoran, Peter (University of Wisconsin at Whitewater) and Pollack, David (Kentucky Heritage Council)**

[251] *Final Resting Place: Spatial Relations in the Old Frankfort Cemetery*

The Old Frankfort Cemetery dates from the 1800's to the 1850's. It was rediscovered in 2002. Two hundred forty-two individuals were recovered. It probably started as a small family cemetery and thru urban growth it became the primary cemetery for Frankfort's working poor and freed African-American residents. The distribution of age, sex, biological affinity, coffin hardware, and

stone-lined vaults has much to say about social relations in early nineteenth century Frankfort, Kentucky. Analysis of spatial relations points to familial relations and differences in the social standing of those who were interred in this cemetery.

**Killoran, Peter [251]** *see Pollack, David*

**Kinder, Melissa [145]** *see Rice-Snow, Scott*

**Kindon, Andrew [159]** *see Prufer, Keith*

**King, Eleanor (Howard University)**

[181] *The League of Extraordinary Partners: The Story of the Escuela Internacional de Mexico*

When the Escuela Internacional de Arqueología y Etnología opened in Mexico City in 1910 it represented a unique multinational collaboration: sovereign governments and universities working together to foster archaeological and other research in Mexico. Conceived of and promoted by Franz Boas, the Escuela united Mexico and Prussia with universities teaching American archaeology. Mexico appointed the President, but participants took turns naming the research director, beginning with Eduard Seler, then Boas himself. The Mexican Revolution put an end to the Escuela, but its legacy, which includes Gamio's pioneering excavations, remains significant for the history of New World archaeology.

[246] *Discussant*; [120] *see Shaw, Leslie*

**King, Jason L. (University of New Mexico) and Buikstra, Jane E. (Arizona State University)**

[104] *Rituals of Renewal in the Lower Illinois River Valley*

Middle Woodland rituals of renewal were symbolically linked to liturgical sequences performed according to annual or supra-annual calendrics. Recent excavation at the Mound House site, a Middle Woodland (150 BC-AD 250) floodplain mound group (11-GE-7) in the lower Illinois River valley, has revealed evidence of pre-mound activity, prepared surfaces, ramp-building, and other structural elements defined by contrastive sediments. The depositional sequence of these elements and their constituent components are interpreted here in terms of symbolic referents that anchor the worldview of Middle Woodland peoples.

**King, Julia (MD Archaeological Conservation Laboratory)**

[91] *How the Past Became a Place in the 19th-Century Chesapeake*

This paper explores how, by the mid-19th century, history and its material presence were becoming part of a central narrative of everyday life on the plantations of the Chesapeake Tidewater. Contemporary economic and social conditions were made to appear rooted in a distant and unchangeable past, one proved by ruined and abandoned buildings and cemeteries in the landscape now reconfigured as "relics." White planter families used this nostalgia-based aesthetic and its ruins and relics in part to establish complete social control, while their enslaved laborers used it to subvert their use of total power. Outsiders used it to condemn the "backwardness" of the region; in the 21st century, we use it to celebrate the "world before" modernity.

[24] *Discussant*

**King, Mindi (AMEC Earth & Environmental)**

[251] *Prevalence of Enamel Hypoplasias in the Old Frankfort Cemetery*

Enamel hypoplasias are presented for 61 adult male, 47 adult female, and 39 individuals represented by deciduous dentition from the Old Frankfort Cemetery. Comparisons are made between adult males and females, as well as between adults and juveniles. The chronological distribution of enamel hypoplasias represented by individuals in the Old Frankfort Cemetery is similar to that found in previous studies, with the defects most frequently occurring between the ages of 2 and 4 years of age. The frequency of individuals affected is high with 97.5 percent of the adult individuals and 67 percent of the juveniles showing one or more defect.

**Kingston, Jonathan [17]** *see Plummer, Thomas*

**Kinneer, Christopher (Colorado State University and Centennial Archaeology, Inc.),**

**Kennedy, John (Centennial Archaeology) and Todd, Lawrence (Colorado State University)**

[105] *Counting Rocks!: Generating a Baseline for Human Energy Investment in the Construction of High Altitude Stone Structures*

Field investigations with the GRSLE project in the Absaroka Mountains of northwestern Wyoming

during the 2004 and 2005 field seasons identified numerous sets of dry-laid stone structures. Although the precise function of these structures is unknown, a wealth of information is contained within their attributes. One goal of the current research involves the production of a baseline index of energy in the form of "labor-hours" invested during construction of high altitude stone structures. A comparative data set is drawn from replicative construction activities performed in settings that approximate those of the stone structures identified in the Greybull River project area.

**Kintigh, Keith (Arizona State University)**

[46] *Legacies on the Landscape: National Monuments and the 1906 Antiquities Act*

Under the 1906 Antiquities Act, presidents may designate federal lands as National Monuments, thus protecting their archaeological resources from development or disposal. President Clinton, with Secretary of the Interior Bruce Babbitt, designated 18 new Monuments containing more than four million acres. In many cases, the preservation of archaeological sites and their sustaining landscapes was a major objective. This paper provides a personal account of an archaeologist's role in the process leading to the creation of a few of these Monuments and describes how they present new opportunities for research and public interpretation while posing new challenges to the responsible agencies.

[184] *Discussant*; [81] *Discussant*

**Kintz, Ellen R.** [177] *see Folan, William J.*

**Kinzig, Ann** [160] *see Murphy, John*

**Kipnis, Renato (Universidade De São Paulo)** [154] *Discussant*

**Klarich, Elizabeth (UC Santa Barbara)**

[113] *Ritual Architecture and Monumental Spaces as Reflections of Formative Period Leadership Strategies in the Lake Titicaca Basin, Peru*

In the Lake Titicaca Basin, the sunken court complex has long been considered the archetypal public space. It is generally argued that courts served as settings for ritual performance during the Formative and subsequent Middle Horizon periods, but little has been established about the hosts or intended audiences for these events. A diachronic study of public spaces at the regional center of Pukara, specifically the courts and monumental spaces of the central ceremonial district, indicates a shift from inclusive to exclusive leadership strategies during the Late Formative period (500 BC- AD 400) and a variety of local responses to these changes.

**Klein, Cecelia F. (UCLA)**

[147] *Sex in the City: A Comparison of Aztec Ceramic Figurines to Sculptures Found at or near the Templo Mayor and Its Implications*

This paper will compare certain categories of small scale Aztec ceramic figurines, most of which appear to have been used in a household context, with large scale, apparently state-commissioned Aztec statues and figurines in other media (including copal) in an effort to refine our understanding of their formal, iconographic, and functional relationship. It will argue that in the case of certain types of Aztec figurines, particularly those representing animals and women, the differences between the two genres are not as great as previously thought. This suggests that the Aztec State appropriated and simply modified certain kinds of domestic art forms produced by commoners rather than promoting an essentially new, official, and patriarchal visual vocabulary entirely unrelated to commoner beliefs. Specifically, the government seems to have adapted certain domestic art forms probably used to promote the health and fertility of individuals and kin groups to prove that its own, imperial actions served its constituents' best interests. If valid, this finding calls for a reevaluation of not only the traditional centrifugal model of Aztec imperial influence, but also the feminist claim that female Aztec ceramic figurines represented a form of ideological "resistance" to male patriarchy and official ideology.

**Klein, Mike**

[243] *Contradiction and Selection in Early Woodland Society*

The Early Woodland period (1000-500 BC) in the southern Middle Atlantic witnessed a reestablishment of highly egalitarian societies, but contained the kernel of subsequent social orders. Ethnographically, extensive sharing and reliance on consensus for political decisions results in group fragmentation and movement of individuals between groups. Yet evolutionary models of group selection indicate that the social rules mandating altruistic behavior may

enhance the fitness of groups of hunter-gathers over the long term. This paper explores social transformation through the analysis of Early Woodland (1000-500 BC) archaeological data, and considers the implications of these data for Middle and Late Woodland Society.

**Kligmann, Debora M. (CONICET - Universidad de Buenos Aires), Albino, Adriana M. (CONICET - Universidad Nacional de Mar del Plata) and Diaz Pais, Elena (Universidad de Buenos Aires)**

[239] *Small Reptile Remains and Ceramic Vessels: A Close Encounter in Northwest Argentina*  
An accumulation of thousands of small reptile bones corresponding to amphisbaenians was found in a ceramic vessel in the archaeological site of Tolombón, Department of Cafayate, Salta Province, Northwest Argentina. These animals, also named 'worm lizards', are limbless reptiles adapted to a burrowing life style. 'Worm lizards' are ubiquitous in the iconography of at least two ceramic styles of the Late Regional Developments Period but up to now, just a few bones have been mentioned for one Argentine archaeological site. This rare assemblage increases the scarce record of reptile remains found in South American archaeological sites.

**Klink, Cynthia (UC Santa Barbara)**

[53] *Lithics and Land-use: Using Projectile Points to Assess Preceramic Settlement Patterns in the Peruvian Altiplano*

This paper explores changing Preceramic land-use and settlement patterns in the southern Peruvian Altiplano using surface data from survey projects along the Rio Huenque drainage in the Lake Titicaca basin. Shifting projectile point frequencies, distributions, and other characteristics are examined at broad temporal scales of ca. 1000+500 years, from the period of first currently documented human presence, ca. 10,000 BP, to about 5000 BP (uncalibrated C14). The newly developed point typology that provides chronological control is briefly outlined and discussed, including some of the insights gained from stylistic comparisons to other regions, as well its limitations.

**Klippel, Walter (University of Tennessee), Ramsey, Ann (University of Tennessee) and Schroedl, Gerald (University of Tennessee)**

[31] *Assessing Enslaved African and British Royal Engineer Diets From Faunal Remains at Brimstone Hill, St. Kitts*

Animal bones recovered from enslaved African and British Royal Engineer contexts, dating 1790-1840, at Brimstone Hill Fortress on St. Kitts in the West Indies reflect both imported military provisions and locally available protein. Both skeletal part frequencies and stable isotopes suggest some domestic animals were raised locally while others represent imported preserved meat. Fish remains include those of extralimital taxa from the North Atlantic as well as locally available pelagic, coastal, and reef fishes. The contrast in animal remains from enslaved African and Royal Engineer contexts is striking in both taxa represented and evidence for fresh meat consumption.

**Klokler, Daniela (University of Arizona)**

[8] *What Should I Do with These Shells? Depositional History of Three Brazilian Shell Mounds*

Interest of Brazilian archaeologists in the study of shell mound sites has increased in recent decades. This wave of new research on coastal societies was accompanied by new approaches to the research in shell sites. Once seen as the result of accumulation of food refuse, these sites are now considered to be built structures. Using data from three sites located in Southern Brazil this paper explores their distinct deposition history and demonstrates the importance of the study of formation processes on understanding shellfish gathering and fishing societies.

**Kluth, David (Western Area Power Administration) and Giliberti, Joseph (Western Area Power Administration)**

[213] *Net Impressed Pottery of the Mississippi Headwaters Region and Its Possible Relationship to Early Gulf Coast Pottery*

The earliest pottery in the Upper Midwest is a sand-tempered, net-impressed type known as Brainerd Ware. This pottery has been dated to the beginning of the Early Woodland Period (3000 BP) by dozens of charred residue samples. This distinctive pottery currently has no known antecedent in the region. Early net-impressed pottery is also known from the Gulf Coast region. This paper will use multiple lines of evidence to explore a possible link between the two regions and the subsequent passing of ceramic technology to the Mississippi Headwaters region.

**Knapp, Timothy [35]** *see Versaggi, Nina*

**Knecht, Richard [78]** *see Davis, Richard*

**Kneip, Andreas [8]** *see DeBlasis, Paulo*

**Knight, Vernon (University of Alabama)**

[112] *La Loma del Convento: Its Centrality to Current Issues in Cuban Archaeology*  
La Loma del Convento, in south-central Cuba, was excavated in a succession of Cuban and Cuban-Soviet projects in the 1970s and 1980s. Data from this large late-period Native village are relevant to a number of issues central to modern Cuban archaeology. With a well-developed internal chronology, it is a linchpin in discussing the appearance and spread of Agroalfarero complexes on the island. As a central town among smaller settlements, it is pertinent to discussions of the emergence of hierarchical social formations. And as the documented encomienda of Bartolome de Las Casas, it informs the post-contact experience of Native Cubans.

**Knippenberg, Sebastiaan (ARCHOL)**

[16] *Flint and Chert Source Characterizing in the Lesser Antilles*

This paper addresses the methodology used in characterizing flint and chert sources within the Lesser Antilles with the aim of provenancing artifacts. Using multiple approaches, the study not only has the aim of characterizing sources, but also attempts to explain the possible differences between the sources. In the course of the paper different aspects of the flints and cherts will be discussed, including a presentation of their trace element composition and a discussion on the effects of chemical weathering and the relation with the rocks in which they were formed. Finally the data are used to discriminate sources and provenance artifacts.

[1] *see Hofman, Corinne L.*

**Knudson, Kelly J. (Arizona State University)**

[206] *Transitions and Archaeological Chemistry: An Illustration from the South Central Andes*

Throughout his career, T. Douglas Price has been at the forefront of crucial transitions in archaeological method and theory. By facilitating the incorporation of techniques and methods from chemistry into archaeology, he has revolutionized the ways in which archaeologists ask and answer questions about the past. This paper will examine the powerful contributions of archaeological chemistry in research that is appropriately contextualized in the archaeological record and utilized by and for archaeologists. These contributions will be illustrated by an Andean case study of the transition from states to empires and the role of migration in polity formation and integration.

**Knüsel, Christopher (University of Bradford)**

[128] *The Evidence of Warfare: Subtle Stigmata?*

Many treatments of violence and warfare in the past falter due to the perceived ambiguous nature of evidence for armed conflict. These treatments are often based on the occurrence of defensive sites, weapons, and burials furnished with weapons, indicators that are as much a social statement about the prestige of the builders or buriers- or even as a prophetic warning against attack- as secure evidence for warfare. This treatment considers the physical evidence of wounds, fatal and healed, as the *sine qua non* of warfare and its results in order to better substantiate evidence for armed conflict.

**Koetje, Todd [100]** *see Grimm, Linda*

**Koga, Yuko (Aichi Prefectural University)**

[140] *Reconsideration of Residential Complexes in Teotihuacan*

This poster examines the spatial analysis, illumination, and access in residential complexes in Teotihuacan. These were one-story compounds in 60 x 60 m, and they were composed of windowless rooms. And it is considered that open spaces have functioned as the light source and rain water gathering. However, previously systematic studies of the illumination had not been carried out. Each compound varies in room size, layout, inside access and light quantity in each space. These differences can reflect social and cultural levels and functions. Published and surveyed maps are herein used to reinterpret these domestic structures from the architectural aspect.

**Kohl, Philip (Wellesley College)**

[85] *Tales of the Mountains and Steppes: Reconstructing Social Complexity in the Absence of Ethnographic Parallels*

This paper reviews criticisms of comparative neo-evolutionary approaches to the study of complex societies and raises the question of their general credibility despite their limitations. It presents evidence for the origins of complexity during the late Early Bronze Age in the Caucasus and during the Late Bronze Age on the Eurasian steppes, particularly in the construction of monumental structures and the extraction of ores and diffusion of metalworking technologies. While such evidence may not have direct analogies in the ethnographic record, the societies that produced these remains must be reconstructed upon the rational calculations of the peoples who made them.

**Kohler, Timothy (WSU/SFI/CCAC) [192] Discussant**

**Kohler, Timothy (WSU/SFI/CCAC) and Varien, Mark (CCAC)**

[7] *A Scale Model of 700 Years of Farming Settlements in Southwest Colorado*

We review the demographic and settlement history of the 700-year occupation of the 1800-sq-km portion of the central Mesa Verde region studied by the Village Ecodynamics project, paying special attention to the implications that social strife and carrying capacity may have had for this demographic trajectory. We use allometric scaling to identify anomalies in scaling relationships among sites to explore the formation of aggregated villages. Changing scaling relationships through time require explanations drawn from history and from sociopolitical and ecological processes.

**Kohn, Alison (University of Chicago)**

[149] *An Ethnoarchaeology of Urban Processes: The Case of La Paz, Bolivia*

This paper presents some preliminary conclusions based on recent ethnoarchaeological research carried out in La Paz, Bolivia. The research is part of a long-term archaeological project concerned with the urban built environment under colonial and post-colonial social conditions. An ethnoarchaeological investigation into the intersection of political authority, history and urbanization was carried out via a case study of the historical social production of one vernacular neighborhood, including its relation to the city and its institutions as a whole. Some initial results of this research will be discussed.

**Kolianos, Phyllis E. (Weedon Island Preserve Cultural and Natural History Center)**

[248] *Frank Hamilton Cushing's Explorations of the South Florida Gulf Coast, 1895-96*

The writings of Frank Hamilton Cushing, a noted anthropologist of the late 19th century, convey his intuitive genius and comprehension of the complex world of prehistoric southwest Florida. In his exploration along the Gulf Coast, he detailed observations of the terrain and archaeological sites in a still natural Florida that give a rare insight into the interrelationships of ancient marine cultures and their environments. Cushing's important descriptions and drawings of Charlotte Harbor sites and his remarkable findings at Key Marco from his recently published journals and manuscript offer new information into his significant contribution to Florida archaeology.

**Kolosov, Viktor K. [150] see Buvit, Ian**

**Komulainen, Nancy (New Mexico State University)**

[238] *The Important, Yet Elusive, Role of Maya Sacbeob*

The role of sacbeob, causeways of the Preclassic and Classic Maya, remains one of the least understood features of site layout. Why were formal roads built in a society without beasts of burden or wheeled vehicles? Mayanists often assume that sacbeob served to connect ritual and elite complexes within centers and to connect site centers with outlying settlements or more distant centers. However, not all centers have them. The apparent random distribution of causeways demonstrates the need for further study into the importance of sacbeob and site planning. This paper explores their distribution and proposes explanations for their varied presence.

**Konig, Viola [236] see Gutierrez, Gerardo**

**Konstantinov, Mikhail [133] see Terry, Karisa; [150] see Buvit, Ian**



**Koons, Michele (University of Pennsylvania Museum), Ernenwein, Eileen (University of Arkansas), Lowe, Kelsey and Fogel, Aaron (University of Arkansas)**

[163] *Results and Interpretations of the Technological Research at Tiwanaku, Bolivia*

Remote sensing research in the form of satellite /aerial photography and geophysics has become an important part of archaeological investigations at the site of Tiwanaku. One geophysical method, ground-penetrating radar, has been used successfully for three field seasons with more than 100,000 m<sup>2</sup> of data collected. During the 2005 season four additional geophysical techniques were employed to further map the subsurface. These include conductivity, resistivity, magnetometry and susceptibility. Additionally, the integration of satellite images and aerial photographs with these geophysical methods gives further understanding to Tiwanaku's built environment. This paper will outline the remote sensing techniques used, data collected and incorporated results.

**Kopperl, Robert (Northwest Archaeological Associates), Bovy, Kris (University of Washington) and Lape, Peter (University of Washington)**

[6] *"Puget Sound Traditional Food and Diabetes:" Archaeological Data in an Educational Outreach and Public Health Context*

Archaeological data contribute to an educational program aimed at diabetes prevention in Puget Sound Native communities. The Muckleshoot, Suquamish, and Tulalip Tribes are working with archaeologists, historians, health scientists, and educators to identify relevant research about the content and nutritional value of past Puget Sound diets, and to develop educational materials about diet and diabetes relevant to Puget Sound Native communities with the aim of improving overall community health. A review of existing Puget Sound zooarchaeological research, primarily from CRM contexts, highlights a long history of use of food types whose harvest and consumption would have generally prevented the disease.

**Kornfeld, Marcel [72]** *see Anderson, Derek T.;* **[83]** *see Larson, Mary Lou*

**Kosakowsky, Laura J. (University of Arizona) and Driver, W. David (Southern Illinois University)**

[87] *Transforming Identities and Shifting Goods: Tracking Sociopolitical Change through the Monumental Architecture and Ceramic Assemblages at the Maya Site of Blue Creek in Northwestern Belize*

The architectural and ceramic records at the Lowland Maya site of Blue Creek in northwestern Belize reflect changes in the beliefs, status, politics, and economics of its inhabitants. Transformations in the nature of monumental constructions in the site core and associated ritual activities, along with shifts in ceramic sphere connections provide a framework for understanding the sociopolitical development of the site. Furthermore, alterations in the manipulation of the built environment in conjunction with changes in the ceramic assemblages can be interpreted as evidence of both local and regional influences on a Blue Creek society that was dynamic throughout its occupation.

**Kosakowsky, Laura J. [87]** *see Little, Nicole C.*

**Kosiba, Steven (University of Chicago) and Cuba Peña, Luis Alberto (COARPE, Peru)**

[149] *Shifting From Local to Regional Landscapes of Power: Inka Conservation and Transformation of a Cusco Area Urban Settlement (Wat'a)*

New survey and excavation data from the Cusco region will be presented to address how the Inkas altered urban-rural relations in their effort to incorporate once autonomous settlements into a politically consolidated heartland. Through analysis of the changing spatiality and hierarchy of household practices both within the site and its surrounding landscape, interaction between an important pre-Inka nucleated urban center (Wat'a) and the nascent Inka state will be discussed. The objective is to understand how local people become subjects of an integrated regional polity through the transformation of where and how everyday socioeconomic activities take place.

**Kosiba, Steven [101]** *see Bauer, Andrew*

**Koster, Renee (Syracuse University) and Roache, Amy (Syracuse University)**

[5] *Trade Sites of the St. Lawrence Valley, 17th -18th Century: Characteristics, Identification, and Location*

This poster will illustrate a GIS based predictive model for potential locations of 17th- to mid

18th- century French fur trade routes and archaeological sites in the St. Lawrence Valley sphere of influence. Using historical data, archival maps, known archaeological sites, artifact assemblages, and landform analysis, the authors will generate a comprehensive set of common attributes that will identify locations where these types of sites should be expected. An understanding of trade behavior will also help define expectations for sizes of occupations and associated features.

**Kovacevich, Brigitte (Vanderbilt University)**

[238] *How Did They Do That? Ancient Maya Jade Working Technologies from the Perspective of Cancuen, Guatemala*

This paper will discuss jade production technology at Cancuen and compare it with technologies from other world regions. This discussion will include tools and techniques involved in the various stages of production. Jade production at Cancuen was characterized by segmented production, in which crafters of varying statuses completed different stages of the production of jade artifacts. The social implications of this segmented production will be explored in reference to social reproduction and negotiation.

**Kovarovic, Fire (University College London, UK)**

[40] *Reconstructing the Environment of the Laetoli Hominids: Evidence from Bovid Remains*  
Laetoli, Tanzania, preserves some of the oldest evidence for hominid bipedalism. A key question is the environment in which these bipeds lived. Here I examine environmental change during the deposition of the Laetoli Beds (3.8-3.5 mya) where hominid remains and preserved footprints have been recovered. An ecomorphological analysis of the bovid skeleton evaluates the ability of each element to predict the preferred habitat types of the individuals. Efficient habitat predictors are identified and an ecomorphological survey of these elements from the Laetoli assemblage is conducted, thus providing a picture of the dominant habitat types throughout the deposition of these beds.

**Koziarski, Ralph (UW-Milwaukee)**

[89] *Community Dynamics of Fisheries in the Upper Great Lakes*

Fishing has been an important component of life in the Upper Great Lakes region of North America since at least the Late Woodland Period and into the Historic Period. Sites like Juntunen, on Michigan's Upper Peninsula, and records of early French explorers indicate that large multi-band villages were established for autumn fishing activities. This study surveys ethnographic and ethno-historic data for societies occupying the northern coasts of Lake Michigan and Lake Superior to examine the social and political dynamics of these multi-band villages.

**Kraemer, Anne (Proyecto Arqueologico Chocola) and Kaplan, Jonathan**

[157] *Community Archaeology at Chocola*

"Community archaeology" is necessary in a practical sense for successful research and for preservation of cultural and biological diversity. It is also timely as a reflexive and multivocal anthropology. The Chocola project negotiates with an impoverished Kiche Maya community, under which lie archaeological remains vital to Maya scholarship, about land used for small-plot coffee farming and on which the town is growing in unplanned and destructive ways. Alternative "sustainable development" strategies, including a return to ancient Maya cacao farming, provide possible escape from the disastrous legacies of Conquest-, colonial-, post-colonial-, and now globalism-framed cash-crop export subsistence.

**Kraus-Friedberg, Chana (University of Hawaii-Hilo)**

[114] *Written in Stone?: Beyond Typology in Gravestone Studies*

In many ways, gravestones represent the answer to every archaeologist's dreams: artifacts that come complete with dates and individual names. Despite the uniqueness of these artifacts, however, most archaeologists studying gravestones have remained engrossed in the creation of typologies, an approach that, while valuable, does not exploit the true potential of gravestones to address the worldviews of those who rest under them and those who created them. In this paper, I will explore alternative ways of researching gravestones, in which their potential as texts might be better addressed.

**Kraushaar, Angelica (NSU-CRO) and Eary, John (NSU)**

[97] *Developing a GIS Data Model for Cultural Resources Identified on Louisiana Army National Guard Properties*

This paper will discuss the formation of a geodatabase model using data collected from Phase I

surveys of LARNG properties. A major goal is to create a model that will allow multidimensional analyses of the data to aid in both planning and research applications. Our observation is that project goals, data accuracy, and field and laboratory methods often vary from project to project. Thus, one of the challenges faced is integrating data from multiple project years into a cohesive whole. Furthermore, the database model must be flexible enough to apply to constantly evolving research and planning objectives at multiple geographic scales.

**Kraybill, Lindsay [62]** *see Nicolli, Joe*

**Kremkau, Scott (Columbia University)**

[95] *Communities and Identity on the North Coast of Peru*

This paper will examine how shared community social identities are created and transformed within the boundaries of cultural groups. Specifically, the paper looks at two groups of settlements in the Chaman Valley on the Peruvian North Coast, in the era following the regions incorporation into the Inka Empire in the late 15th century. These two groups illustrate an "Inkanization" of the local communities, and a shift within the valley towards ceremonial cycles associated more with sierra lifeways than the coast.

**Krigbaum, John [141]** *see Tucker, Bryan*

**Krueger, Bradley A. [42]** *see Livingood, Patrick*

**Kruger, Robert [136]** *Discussant*

**Kruse, Melissa (Arizona State University)**

[118] *The Agricultural Landscape of Perry Mesa: Modeling Residential Site Locations and Arable Land*

Research on the agricultural landscape of the Perry Mesa region of Central Arizona is important in identifying the locations likely to demonstrate legacy effects from prehistoric farming. The factors that influenced the distribution of agricultural activities are important in identifying the ecological and social conditions under which human land use transforms ecosystems. An assessment of agricultural sites in the region indicates a diverse strategy in field placement. Additionally, results of a GIS model of potential agricultural land shows that large residential sites in the region are preferentially located in proximity to areas with more potential runoff agricultural land.

[118] *see Schaafsma, Hoski*

**Kuhn, Steven (University of Arizona)**

[98] *Assessing Artifact Standardization: Control or Constraint?*

Paleoanthropologists cite standardization in stone tools as evidence for levels of cognitive sophistication in Pleistocene hominids. Many treatments of artifact standardization are undermined by (1) a loose definition of the concept itself, and (2) non-probabilistic standards for comparing levels of standardization. The term "standardization" implies imposed form, but what we actually measure is simple variance in size and shape, which can be influenced by a range of factors. This paper uses a resampling approach to comparing sample coefficients of variation (cv) in order to assess how a range of factors may influence variation in sizes and shapes of Middle Paleolithic artifacts.

[192] *Discussant*; [83] *see Stiner, Mary C*

**Kuijt, Ian (University of Notre Dame)**

[111] *Embodiment, Embedding and Cycles of Time among the Neolithic Living Dead*

Near Eastern Neolithic skull removal and plastering and construction of large anthropomorphic statues have been interpreted as evidence for ancestor worship. This paper explores Middle Pre-Pottery Neolithic skull removal and plastering from the perspective of the presentation of personhood and embodiment that were visually centered on the head and face. Skull plastering linked the social and physical body with the past, present and future projecting community members forward and backwards in time. Manufacture, repeated use, and modification of these objects as heirlooms illustrate a process of embedding personhood and materiality of social bodies in the mundane and ritual spheres.

[7] *Discussant*; [133] *see Quinn, Colin Patrick*; [133] *see Carlson, Eric*

**Kulisheck, Jeremy (Santa Fe National Forest)**

[129] *Population and Settlement Trends in the Jemez Province, A.D. 1250 to 1600*

The Jemez Province experienced dramatic population growth following its settlement in AD 1250, becoming the most densely populated province of the Pueblo world by 1600. Coalition and early Classic period settlement organization shared similarities with adjacent provinces, the southeastern San Juan Basin and Pajarito Plateau. After 1525, however, the largest aggregated settlements in the Jemez emerged in upland settings, contra the abandonment of upland areas across the northern Southwest by 1500. The formation and growth of Jemez communities was driven by migration, but settlement organization was a product of contemporary regional sociopolitical trends, and local environmental and economic conditions.

**Kulisheck, Jeremy [148]** see *DeDufour, Karyn*

**Kulow, Stephanie (Arizona State University)**

[75] *Mimbres Pottery Motifs in a Social Context: A Case Study from the Galaz Ruin*

While the designs on Mimbres pottery have been well-studied from an art-historical perspective, fewer published studies have explored the link between painted designs and bowl provenience. Here, I examine that link using data from the Galaz Ruin burials. Specifically, I consider whether designs are associated with demographic factors, such as age and sex, or with intrasite spatial arrangements, such as room clusters. I consider both figurative and geometric designs, focusing on design layout, type of motif, and symmetry.

**Kulow, Stephanie [75]** see *Hegmon, Michelle*

**Kuns, Erin (Indiana University) [6]** see *McGill, Dru*; **[214]** *Discussant*

**Kurchin, Bernice (Hunter College, CUNY)**

[151] *Ideology of Empire: There is No Place but Rome*

Justifying the economic imperatives of Roman Imperial expansion was an ideological certainty that the peoples they conquered wanted above all to be Roman, to live in the Roman fashion, under Roman Law. The perception of an absolute rightness in what was Roman, determined the use of foreign space, the design of a new infrastructure throughout the empire, and even pervaded the organization of the Roman Church in the fourth and fifth centuries AD. This perception continued to drive European expansionism into new worlds and informs the hegemonic counter-movement to the east today. Only the names have changed.

**Kurin, Danielle (Vanderbilt University)**

[141] *Multiethnicity in the Eastern Valleys: A Bioarchaeological Study of a Prehistoric Bolivian Mortuary Community*

This poster presents evidence of cultural diversity following the decline of Tiwanaku in the Eastern Valley region of Bolivia. It finds that social dynamics were far richer than previously understood, and suggests modes of interaction that strongly demarcated distinct ethnic identities within larger interacting communities. Employing a bioarchaeological approach to the study of mummified remains, the data suggest that a suite of cultural practices developed into symbolically significant ethnic markers, used to define and distinguish identity both in life and in death.

**Kus, Susan (Rhodes College)**

[15] *Matters of Belief: Middle-range Theory and the Archaeological Study of Religion and the State*

In early states sovereigns are gods, the less audacious royals their privileged intermediaries. DeHeusch remarked: "a comparative study of politics should begin with a comparative study of religion." Religion plays a critical role in giving conceptual form to new rules (of the state) that trump social and economic principles of kinship and egalitarian reciprocity in order to justify the existence of privileged elite. HOW? How does one do theoretical justice to both the insidiousness of hegemony AND conviction in local knowledge and the efficaciousness of belief therein? These are important matters for middle-range theory in the archaeology of religion.

**Kusimba, Chapurukha (Field Museum of Natural History) and Kusimba, Sibel (Northern Illinois University)**

[169] *Precolonial Ethnomosaics in Southeastern Kenya*

Archaeologists have long believed that little interaction existed between preindustrial cities of the

coast and their rural hinterlands. Ongoing archaeological research in Tsavo shows that Southeast Kenya has continuously been inhabited since the early Holocene. Tsavo peoples made a living as foragers, herders, farmers, and traders who were linked to global markets via coastal traders. They were at one point important suppliers of ivory destined for Eurasia. Our excavations document forager and agropastoralist habitation sites, iron smelting sites, fortified rockshelters, and mortuary sites. We will discuss the relationship between fortified rockshelters and slave trade that emerge from the 17th century.

**Kusimba, Chapurukha [169]** *see Zacher, Melanie*; **[40]** *see Kusimba, Sibel*

**Kusimba, Sibel (Northern Illinois University/The Field Museum), Kusimba, Chapurukha (The Field Museum) and Zacher, Melanie (University of Illinois at Chicago)**

**[40]** *Ethnoarchaeology of Western Kenya Potters*

Potters in Western Kenya are artisans, traders, wives and mothers, producers of vessels for rituals, and conduits of knowledge and information across ethnic lines. Today, potters face numerous crises: increased competition from plastic and aluminum vessels; stress in the household from population increase, land shortage, delocalization, and the HIV/AIDS pandemic; contestation of rituals that involve pottery; and ethnic conflict. Research documents intercommunity interaction through trade of crafts, exchange of labor, intermarriage, and joint ritual. We will discuss the responses of potters to present crisis and its impact on the social, economic, ritual, and ethnic realms of pottery and potters.

**Kusimba, Sibel [169]** *see Kusimba, Chapurukha*; **[169]** *see Zacher, Melanie*

**Kwas, Mary [38]** *see Jeppson, Patrice L.*

**Kwoka, Joshua J. (SUNY Buffalo)**

**[48]** *The Lithic Industry of San Bartolo*

This paper is intended to be a general overview of the lithic industry of San Bartolo. Preliminary research suggests that stone tool production was an important facet of San Bartolo's economic system. Survey and excavation have revealed strong evidence for the presence of craft specialists in the form of lithic workshops and highly organized quarry sites. Although not on the level of Colha, it is important to note that intensive stone tool production at San Bartolo represents a much smaller time span, falling in the Late Classic.

**Kyker, Rachel [92]** *see Reed, Kristen*

**La Pierre, Kish (California State University, Bakersfield) and Antrobus, Kathy (California State University, Bakersfield)**

**[36]** *A Cluster Analysis of Coprolites Recovered from the Ancient Shorelines of Lake Cahuilla Coachella Valley, California*

The excavations at Lake Cahuilla Coachella Valley, California resulted in the recovery of several hundred exceptionally preserved coprolite samples. Some of these samples were analyzed in 1978 by Wilke and then reanalyzed in 1998 by Sutton. This paper reports on additional samples that were not previously analyzed and thus compares these results to the aforementioned studies.

**La Rosa, Gabino (Centro de Antropología)**

**[112]** *Arqueología del Cimarronaje: Útiles para la Resistencia*

Sobre la base del estudio arqueológico de treinta sitios que sirvieron de escondite a reducidos grupos de cimarrones en Cuba, se evalúa la potencialidad de los recursos de la arqueología histórica como ciencia para reconstruir la vida cotidiana de los cimarrones, sus tácticas defensivas y recursos subsistenciales. Se prueba que mediante la arqueología, se supera el discurso documental generado por los centros del poder esclavista y se aprecia el grado de africanización y criollización en las tradiciones, hábitos y costumbres que habían producido estos grupos humanos como consecuencia de la esclavitud y de su vida en libertad en los montes.

**La Rosa, Gabino (Centro de Antropología)**

**[1]** *Comercio de Contrabando en Cuba en el Siglo XIX*

El comercio de contrabando en el Caribe de la etapa Colonial ha recibido poca atención por parte de los arqueólogos. Sin embargo, desde una perspectiva arqueológica se pueden develar

novedosos aspectos relacionados con los vínculos comerciales no oficiales entre los grandes centros productores de mercancía de Europa, Estados Unidos y las islas del Caribe. Un estudio realizado en numerosos sitios que sirvieron de refugio a contrabandistas en la mayor de las Antillas prueba la relevancia que estos vínculos alcanzaron durante el siglo XIX.

**LaBelle, Jason (Colorado State University)**

[217] *Re(occupation) of Place: Late Paleoindian Land Use Strategies on the Central and Northwestern Plains*

Recent studies indicate that Folsom land use patterns were often repetitive in nature, returning to well-established locations that locally provided abundant organic and inorganic resources. This pattern emerged during Folsom times, but its continuation into later Paleoindian periods is less understood. In this paper, characteristics of site structure, including area extent, reoccupation, feature use, and assemblage size are examined for 12 early Holocene sites located within the Central and Northwestern Plains. Late Paleoindian land use strategies are compared to those of early periods, documenting continuity in adaptive strategy over several thousand years and across the greater region.

**Lack, Andrew (Arizona State University), Watts, Joshua (Arizona State University) and Abbott, David (Arizona State University)**

[57] *Changing Patterns of Hohokam Red-on-buff Production from the Preclassic to Classic Periods*

The production of Hohokam Red-on-buff pottery in southern Arizona has been a matter of much speculation over the last several decades. Although a great deal is known of plainware production and exchange, provenance studies of buffware have been mostly elusive. However, with the recent increase in knowledge of geological petrofacies in which buffware was produced and the resultant ability to recognize different temper sources we have begun to construct a picture of buff ware production. Most interesting at this early point in the research is the dramatic shift in buffware producers from the Preclassic to the Classic period.

**Ladefoged, Thegn (University of Auckland), Stevenson, Chris (Virginia Department of Historic Resources), Chadwick, Oliver (UCSB) and Vitousek, Peter (Stanford)**

[50] *Agricultural Adaptation and Innovation on Rapa Nui*

Rapa Nui is an isolated volcanic island comprised of relatively poor soils, with moderate but variable and unpredictable annual rainfall. Indigenous populations developed at least five classes of agricultural adaptations and innovations for growing a variety of crops. The chemical characterization of soils from within and outside different classes of agricultural features documents nutrient variability. Hourly data on temperature and moisture levels collected over the past year with a HOBO Micro Station demonstrate the advantages of intensive activities. The chemical and physical properties of archaeological features provide insights into how people adapted, flourished, and struggled in the challenging environment of Rapa Nui.

**Lafe, Ols [146] see Galaty, Michael**

**Laffoon, Jason (University of Illinois at Chicago), Williams, Sloan (University of Illinois at Chicago), Pestle, Will (Field Museum of Natural History) and Curet, L. Antonio (Field Museum of Natural History)**

[141] *Preliminary Analysis of Ancient DNA from Prehistoric Populations of Puerto Rico*

There is great debate in the Caribbean about the issues of migration and inter-group interaction. This work presents the results of an ongoing exploratory study that addresses these research topics through the analysis of DNA from human remains. Examination of mtDNA obtained from ancient human populations of Puerto Rico directly contributes to ongoing studies of these issues in the Caribbean region and beyond. The identification of haplotypes, their frequencies within populations, and changes in these patterns over space and time provides an opportunity to re-explore the migration processes involved in the prehistoric peopling of Puerto Rico and the Caribbean.

**Laguens, Andres (Universidad Nacional de Cordoba (Argentina)), Giesso, Martin (Northeastern Illinois University), Speakman, Robert J. (University of Missouri) and Glascock, Michael (University of Missouri)**

[219] *Provenance Analysis of Gray-Black Incised Ceramics from the Eastern Valleys of Ambato and Tucuman, Argentina*

Aguada ceramics, decorated with felines, warriors and "sacrificers" were an important media of

Aguada ritual, particularly the gray and black incised wares, characteristic of the Ambato valley sites. Aguada's most relevant architectural structures are in Ambato, where ceremonial contexts have higher percentages of these two types than domestic contexts suggesting differential access. Where these ceramics manufactured with one or more clays from the Ambato valley or elsewhere? We applied INAA to 60 sherds from 12 sites from the Ambato and Catamarca valleys, and from southwestern Tucuman and eastern Catamarca, and 6 clay samples from the Ambato valley. Results indicate that most Ambato ceramics were manufactured using one main clay source. This correlates with the increasing social inequality and limited access to goods by elite groups.

**Laluk, Nicholas (White Mountain Apache Tribe -University of Arizona)**

[171] *An Integrative Approach to Interpretations of Historic Apache Camps*

Due to the ephemeral nature of historical Apache camps in general, forming an understanding of historical Apache life-ways based on questionable archaeological signatures has become a difficult task. Through the use of an integrated combination of archaeological data, documentary history, and White Mountain Apache oral traditions and consultant perspectives valuable insights into the ambiguous nature of historical period Apache camps can be determined.

[2] see *Altaha, Mark*; [2] see *Roos, Christopher I.*

**Lambers, Karsten (German Archaeological Institute)**

[148] *Nasca Archaeology in 3D: Interdisciplinary Research and Education in Palpa on the South Coast of Peru*

Geospatial methods are a core element of the research undertaken since 1997 by the Swiss-German Nasca-Palpa Archaeological Project. The Nasca geoglyphs near Palpa have been recorded using aerial photogrammetry. 3D scanning and geophysical prospection have allowed us to detect, document and classify stone buildings, ceramic sherds, and subsurface archaeological remains. The resulting data which are currently being analyzed in a GIS have greatly enriched our vision of Palpa's prehispanic history. In this paper I will talk about our research and how we link it to education at universities in Peru, Switzerland, and Germany through courses and practical training of students.

**LaMotta, Vincent (University of Arizona) [93]** *Discussant*; [93] see *Diaz de Valdes, Rachel*

**Latana, Jose Luis (Uni. De Buenos Aires) [154]** *Discussant*; [226] see *Garcia-Herbst, Arleen*

**Landau, Kristin (Colgate University)**

[237] *Copan's Great Plaza as City Center: Ritual Circuits, Quadripartitioning, and the Stelae of the 13th Ruler*

Hypotheses generated by PAPAC suggest a distinct urban plan for Late Classic Copan, one based on relationships between the architecture and stelae of the Great Plaza and the construction plans of specific architectural complexes outside of the Principal Group of ruins. This paper discusses the heart of this hypothetical plan by addressing the processional nature of Waxaklahun-Ubah-K'awil's Great Plaza stelae and their association with astronomical information and the quadripartite motif in Maya world-view and mythology.

**Landon, George V. (University of Kentucky) and Seales, W. Brent (University of Kentucky)**

[126] *New Methods for Rock Art Recording and Virtual Analysis*

We present a method for preserving and visualizing petroglyphic art. The process creates accurate 3D textured models of carved surfaces, making the intricate geometry available for study with interactive computer-based tools. Examples of useful virtual analysis include visualization with synthetic lighting, simulated to highlight the subtleties of the carvings, and texture-mapping with annotated content. We demonstrate our progress with results from Taino petroglyphs, which are located at the ceremonial center in Caguana, Puerto Rico.

**Lane, Kevin (Cambridge University)**

[60] *Engineered Worlds: Technological Architecture, Landscape and Identity in the Andes*

Although small-sized technologies, such as flintknapping, ploughing and pottery, have been given comprehensive coverage in anthropological and archaeological literature, outside of architecture, there are few studies that investigate the recursive interaction between people, technology and landscape. Yet monumental technological architecture is an important proxy indicator of human agency. I therefore propose to examine the role that hydrological technology,

which I term "hydrotechnic architecture," such as dams, reservoirs, terraces and canals, has had in engineering and shaping the socio-political structures, cosmologies and ethnic identities of Late Intermediate Period Andean communities in the North-central highlands.

**Lanehart, Rheta E. (University of South Florida), Tykot, Robert H. (University of South Florida), Underhill, Anne P. (The Field Museum), Luan, Fengshi (Shandong University) and Fang, Hui (Shandong University)**

[194] *Lipid Residue Analysis of Pottery from Liangchengzhen, Shandong, China*

A total of 25 sherds from various pottery types (guan, ding, yan, gui, pen) were analyzed utilizing a methanol:chloroform extraction with subsequent analysis of total lipid extracts by gas chromatography, neutral and fatty acid methyl ester fractions by gas chromatography-mass spectrometry (GC-MS), and compound-specific stable isotope values by gas chromatography-combustion-isotope ratio mass spectrometry (GC-C-IRMS). Preliminary results from total lipid esters extracted from a ding tripod sherd indicate a probable animal source of lipids based upon the presence of cholesterol. Results from the lipid analysis will provide support for the hypothesized functions of pottery types at Liangchengzhen.

**Lang, Rebecca (University of California, Riverside), Taube, Karl (University of California, Riverside) and Saturno, William (University of New Hampshire)**

[48] *Contextualizing Cosmology in the Preclassic: Interpreting the San Bartolo Sky Band*

Sky bands are an integral part of Maya artwork, placing the scene in accordance with the upper world. However there has never been a systematic comparison of sky bands in the Preclassic. San Bartolo portrays a representation in context with murals pivotal to understanding Preclassic ideology. The symbols present in the band repeatedly correspond with the depictions above, while retaining similarities with fundamental sites such as Tikal and Izapa. I will intensively compare San Bartolo's sky band with the mural, expanding upon themes present in each, and evolving into a discussion of other Preclassic sky bands within their particular contexts.

**Lape, Peter [6] see Kopperl, Robert**

**Lapham, Heather A. (Southern Illinois University Carbondale)**

[239] *Identifying Late Woodland Feasting Events in Southwestern Virginia: A Zooarchaeological Perspective*

The identification of feasting activities in the zooarchaeological record of complex societies where elite-sponsored feasts were important public events has become a much discussed topic in recent literature. These studies have begun to define patterns of refuse disposal indicative of feasting activities. When working with small-scale societies the question arises: Can these same identifiers be applied to contexts where institutional ranking did not exist? This paper considers one such context in the Late Woodland period in southwestern Virginia to gain better insights into how feasts differed in small-scale societies compared to those held within chiefdoms and early states.

**Lapointe, Richard (MCG 3D Consultant) and Cote, Guy (MCG 3D)**

[62] *3D Scanning Experimentations in Quebec: Some Archaeological Cases*

During the last few years the company MCG3D has been involved in 3D scanning for different uses. Some involved long range scanner to capture part of the ancient docks in Quebec city, others were made at a very high level of detail on contact era rock art. These applications will be illustrated in this presentation as possibilities of different scanning technologies for archaeology. For more info: [www.mcg3d.com](http://www.mcg3d.com)

**LaPorta, Philip (Graduate Center of City University of New York and LaPorta and Associates, LLC) [73] Discussant; [30] see Brewer, Margaret; [74] see Conrow, Michael**

**LaPorta, Philip (Graduate Center of City University of New York and LaPorta and Associates, LLC) and Minchak, Scott (Texas A&M University and LaPorta and Associates LLC)**

[30] *Alternative Lithic Materials in Southeastern New York: Evidence of Prehistoric Quarrying in Bedrock and Glacial Quartzites*

Few archaeologists in the mid-Atlantic region (USA) treat upland areas as containing many archaeological sites. Field investigation by LaPorta and Associates (LPA) in the town of Chester, New York (NY-NJ-CT Tri-State), discovered: (1) bedrock quarries in the Silurian-age



Shawangunk Formation quartzite along; and (2) glacial-derived erratics of Silurian-age Shawangunk and Cambrian-age Poughquag and Lowerre formations. Many surfaces of the quartzite boulders are reddened by the application of heat and are surrounded by an apron of mining debris. The quarry sites, along with associated workshops and camps, occupy the preconceived archaeological site-deficient zone known as uplands.

**Laporte, Juan Pedro (Universidad de San Carlos, Guatemala)**

[208] *Revaluando la Transición del Preclásico Al Clásico, Sur de Petén: Opciones Al Abandono y Despoblación*

Exploraciones en el área Maya han hecho claro que en el Preclásico Tardío la complejidad cultural define las instituciones del periodo Clásico. Para la compleja transición hacia el Clásico Temprano no se consideran todas las zonas en donde la cultura del Preclásico floreció. Una sección del sur de las Tierras Bajas es desechada de los esquemas del Clásico Temprano, como sucede con la región del río Mopan, del río Pasión y del sur de Belice. Estas zonas tienen presencia en el Preclásico y tienen marcado desarrollo en el Clásico Tardío.

**Lappegard, Michelle (University of Denver) and Busch, Richard (University of Denver)**

[69] *Modified Environments and the Utilization of Hill Tops in Northern Peru*

Recent excavations at the site of Cerro Santa Rita in the Chao Valley of Peru have provided us with some interesting and seemingly contradictory data. This paper proceeds from the idea that during Gallinazo and Moche times hills were occupied either for defensive or ceremonial reasons. The lack of any defensive implements on Cerro Santa Rita seems to indicate a ceremonial purpose. The excavated evidence, however, suggests that the site was used domestically. We propose that the current models of hill utilization are insufficient to address the role that Cerro Santa Rita filled and we advocate for an alternate interpretation.

**Lara, Alexandra (STRI/Universidad Nacional Autónoma de Nicaragua)**

[102] *Iguanas and Deer: Favored Animals in a Longevally Impacted Landscape in Panama*

Archaeozoological research and ethnohistoric sources indicate that the white-tailed deer (*Odocoileus virginianus*) and two iguana species (*Iguana iguana* and *Ctenosaura similis*) were hunted intensively by the pre-Columbian inhabitants of central Pacific Panama and were still the most important terrestrial game species at Spanish contact. Drawing heavily on a large corpus of new data from the Cerro Juan Díaz site, this poster summarizes the regional importance of these taxa for food, materials, ornaments and in art, and inquires why they were able to withstand human hunting pressure across a landscape, which was impacted by humans for several thousand years.

**Largy, Tonya B. (Harvard University) and Morenón, E Pierre (Rhode Island College)**

[96] *The Evidence for Maize Agriculture in Coastal Rhode Island: Imaginative, Illusive or Intensive?*

Twenty years ago the evidence for indigenous maize agriculture in Rhode Island included descriptions of Narragansett farming practices by European observers, stone hoes with no provenience, and anecdotes. Without botanical evidence, was pre-European intensive maize agriculture real or imagined? However, an archaeobotanical record is now emerging, project by project, due to fine extraction procedures. This cumulative record is described here. This small record contributes to our understanding of farming practices in a coastal setting. Cultigens appear in a discrete historical episode when settlements and activities significantly intensified, while important 5000 year-old cultural practices persisted.

**Larkin, Karin (University of Colorado)**

[54] *Pots and the Past: Memory, Tradition, and Change in Chihuahua, Mexico*

The end of the 13th century was a time of great social upheaval and reorganization throughout the Chihuahua culture area. Between the Viejo and Medio Periods, previously dispersed populations aggregated into larger, more permanent settlements. These demographic patterns were accompanied by changing power relations and new social forms. This paper examines the role played by memory and tradition as inhabitants of the southern periphery of the Chihuahua culture area negotiated change. I explore the effects of social change on daily life by assessing the retention and discard of traits in ceramic production.

**Larson, Bruce [176] see Sara, Timothy**

**Larson, Mary Lou (University of Wyoming) and Kornfeld, Marcel (University of Wyoming)**

[83] *Paleoindian Diversity and Transition to the Archaic*

Stereotypic interpretations of Paleoindian big-game hunters are based on well known bison and mammoth bone bed sites. However, archaeologists have investigated many less well known or unknown sites dating to the same period. These sites add significant new data about the nature and complexity of Paleoindian cultural systems that highlights groups and individuals who are invisible in the big-game hunting scenario. Our paper synthesizes the data from the "other" sites as a step towards understanding the diversity of Paleoindian lifeways and thereby clarifies the transition to the Early Archaic Period of the Northwestern Plains and Rocky Mountains.

**Lassiter, Erin (IHO-ASU) and Marean, Curtis W. (IHO-ASU)**

[59] *Paleogeography of the African Middle Stone Age (PAMSA): Development of a GIS-based Electronic Atlas of MSA Sites in Africa*

This presentation reports on the progress of PAMSA: a GIS-based electronic atlas of MSA sites in Africa. Its goals are to develop a database on current a/ biotic factors relevant to human adaptations, and to use paleoclimatic models to reconstruct past a/ biotic conditions, thus permitting the examination of human behavior and settlement patterns. The research applications are diverse, as the time period of the MSA encompasses the origin of modern humans in – and their eventual migration out of – Africa. This research addresses the critical questions of where people lived, why they were there, and what their responses to paleoclimatic events were.

**Latham, Mark (Burns & McDonnell), Boudreaux-Lynn, Jennifer R. (Camp Gruber Joint Maneuver Training Center--Heavy) and Riggs, Michael S. (Burns & McDonnell)**

[97] *A Case Study in the Value of Thicker Descriptions: Site Predictive Modeling at Camp Gruber, Oklahoma*

Probability models are a standard tool to estimate archaeological site density. Are they, however, a reliable method for accurate site planning? This paper evaluates the problems encountered from using reconnaissance surveys at Camp Gruber, Oklahoma. Following an intensive site survey, actual site distribution is compared with area and regional settlement pattern studies to show the general model grossly underestimated site density. To understand why the traditional model did not apply, we suggest the need to move beyond simple archaeological models and incorporate additional means of analysis or what Clifford Geertz termed "thick descriptions."

**Lattanzi, Gregory (New Jersey State Museum) and Veit, Richard (Monmouth University)**

[229] *Searching for the Source: Ancient Copper and Early Woodland Trade Networks in New Jersey*

Most archaeological occurrences of copper artifacts in New Jersey come from burial sites dating from the Early Woodland Period. Current research indicates that local sources of copper were available to native peoples living in New Jersey. A little over twenty years ago, the idea of a local origin for New Jersey's copper artifacts was still prevalent. However, only two artifacts from Early Woodland Period sites in New Jersey have been sourced, with results yielding Midwestern origins. Testing additional copper artifacts will allow the source or sources of these items to be better defined, which will have further implications for our understanding of trade networks in the Northeast.

**Lau, George (Sainsbury Research Unit (UEA))**

[116] *The Emergence of Recuay Fortified Towns, North Highlands of Peru*

During the latter half of the 1st millennium AD, densely populated centers developed in the north central highlands of Peru, which were the seats of powerful ethnic groups, emerging out of the Recuay tradition. At fortified settlements such as Yayno (Pomabamba), it is becoming clearer that one of the major reasons for adopting town living was defense. Internecine conflict and the threat of violence encouraged the aggregation of large groups into marginal hilltop settings. Architectural data, building types and masonry in particular, indicate forms of Recuay cultural production which valorized military leadership, community defense and intergroup distinction.

**Laughlin, John P. (Office of the Wyoming State Archaeologist) and Kelly, Robert L. (University of Wyoming)**

[135] *Experimental Analysis of the Practical Limits of Lithic Refitting*

Lithic refitting is becoming a common technique to reconstruct site activities and tool production methods. However, the practical parameters of refitting are poorly known. Are some kinds of

reduction easier to refit than others? Are some individuals more talented? How much does experience matter? Are there practical limits to the size of flakes that can be refit? Using experimental assemblages of reduced bifaces and cores, we test (1) whether biface or core reduction flakes are more successfully refit, (2) the effect of experience and talent, and (3) the effect of flake size.

**Laughlin, John [135]** *see Cooper, Judith*

**Laughner, Rebecca (Kenyon--Proyecto Valle de Cacaúlapa)**

[234] *Stone Tool Production and Use within Agrestic Landscapes: Research Conducted in the Lower Cacaúlapa and Chamelecon Drainages, NW Honduras*

Patterns of stone tool production and use provide insight into ancient economic socioeconomic organization. Analysis of lithic assemblages from seven Late Classic (AD 600-800) rural sites within the lower Cacaúlapa and middle Chamelecon drainages, NW Honduras indicates vastly different patterns of tool use, production, and trade. The study zone covers 10km<sup>2</sup> and cross-cuts the hinterlands of Las Canoas and El Coyote, two Late Classic agrestic centers. This paper describes variation in household lithic economies and non-residential production areas, including differential use of imported obsidian and locally available perlite. The study's implications for understanding economic patterning across agrestic landscapes are considered.

**Laurilla, Erick (Northern Arizona University)**

[99] *Understanding Upland Landscape Use in Western Ireland*

In Ireland, the temporal and spatial relationships between megaliths and early Christian sites remain enigmatic. Archaeologists have focused on monumental architecture and early church sites in upland landscapes, but have failed to investigate the whole human settlement picture including hut sites, field systems, and small clustered structures. My research in Western Ireland, using GIS and viewshed analysis, in conjunction with the Achill Archaeological Field School, aims to understand how people used the slopes of Slievemore Mountain, how these uses changed through time, and what factors influenced site location.

**Lavallee, Daniele (CNRS - France) and Julien, Michele (CNRS-France)**

[53] *Quebrada de los Burros (Peru) Biogeographical Adaptation and Subsistence Strategies of Fishermen and Shellfish Gatherers during Early and Middle Holocene*

The Archaic fishermen-gatherers campsite at QLB has been occupied between 10000 and 6000 BP, in the course of a calm and wet climatic phase. The inhabitants relied intensively on ocean resources complemented by terrestrial hunting. Broad horizontal excavations revealed 7 occupation levels that contained accumulations of food waste, living floor features and specialized activity areas. Abundant lithic material and bone instruments indicate sophisticated fishing and foraging techniques. To resolve the problem of seasonal or year round occupations and possible origins of the human groups, various researches have been initiated: isotopic and sclerochronological analyses, determination of lithic raw material sources.

**Lavallee, Daniele [69]** *see Julien, Michele*

**LaViolette, Adria (University of Virginia)**

[91] *The Swahili in Africa and the Indian Ocean World*

The Swahili, who lived along the Eastern African coast from the 7th century AD onwards, began converting to Islam in the 8th century. Clearly linked to an indigenous regional tradition, their engagement with Islam and the expanding Indian Ocean world created a sense of difference which marks Swahili identity to the present day. Historically, Swahili wealth and practice of Islam led to their being targeted by Arab colonizers from the Persian Gulf. Later European colonists classified them as separate from other African groups in the region, with further implications for Swahili identity. This paper discusses archaeology's role in understanding the changing content of Swahili identity in shifting colonial exigencies particularly after AD 1500.

**[169]** *Discussant*

**Law, W. Boone [209]** *see Houk, Brett A.*

**Lawrence-Zúñiga, Denise (California State Polytechnic University) [185]** *Discussant*

**Lawton, Crorey (Tulane University)**

[238] *Growing Taller: Lithics from a Chipped Stone Workshop in Peten, Guatemala*  
Archaeologists use material from lithic workshops, recovered from both primary and secondary deposits, to provide indirect information about prehispanic economy. Excavations in a 2-m high platform at the periphery of Buenavista, a prehispanic Maya site in San José, Petén, Guatemala, have exposed a 1-m thick lens of material from a chert workshop of incredible density. Materials recovered include high densities of broken tools, hammerstones, flakes, cores, and debitage from various stages of reduction. Results of these excavations are compared to other lithic material recovered from Buenavista, the Late Classic regional capital of Motul and the port site of Trinidad.

[177] see Andrews, Anthony; [25] see Moriarty, Matthew

**Lazcano Arce, Jesús Carlos [221]** see Serra Puche, Mari Carmen

**Lazos, Luz [185]** see Barba, Luis

**Lazrus, Paula (St. John's University) and Van Hove, Doortje**

[42] *Exploring Economic Landscapes from the Ground Up: Archival Research, Survey and GIS Visualization within a Post Medieval Italian Landscape*

Understanding the spatial and social dynamics of a landscape can be enhanced by extending beyond traditional datasets such as multiple map types, environmental and individual site data. Our poster presents an initial attempt to understand the environmental, economic and social landscape around the town of Bova (Reggio Calabria, Italy) during the early 1800s by combining archival tax records with initial GIS analysis to investigate the nature, extent and location of individual land holdings, the types of forest exploitation and the relationships between different social classes in this now very degraded and seemingly empty landscape.

**Leavitt, Alissa (Colorado State University), Fisher, Christopher (Colorado State University), Pollard, Helen (Michigan State University), Israde-Alcantara, Isabel (Universidad Michoacana de San Nicolas de Hidalgo, Mexico) and Garduno-Monroy, Victor**

[193] *Landscapes of Change: New Perspectives on Tarascan (Purepecha) State Formation in the Lake Patzcuaro Basin, Michoacan, Mexico*

The co-evolution of complex societies and their landscapes is a fundamental anthropological question that has received renewed attention in the last decade. One example is that of the Tarascan (Purepecha) Empire centered in the Lake Patzcuaro Basin, Michoacan, Mexico. Recent archaeological and environmental investigation in the region has shed new light on extent models of Tarascan state formation. Here we discuss interrelationships between climatic change, land degradation, lake level flux, and socio-political change for the Postclassic period (~AD 1000-1520).

**LeBlanc, David (Université du Québec à Chicoutimi)**

[30] *Geochemical Correspondence between Artefacts and Important Lithic Raw Quarries from Québec/Labrador in Canada : Mistassini Quartzite and Ramah Chert*

Archaeological excavations held on several sites from the Péribonka River, located north of Lake St-John, in Québec, Canada, led to the discovery of many quartzite artefacts. Macroscopic observations associate these artefacts with known lithic sources from the Colline Blanche of central Québec (Mistassini quartzite) as well as from the Ramah Bay of northern Labrador (Ramah chert). Instrumental Neutron Activation Analysis was used to characterize the archaeological and geological samples and verify the macroscopic observations. Statistical analysis established the geochemical differences between the lithic materials from the two quarries and showed that a significant geochemical correspondence exists between artefacts and quarries.

**LeCount, Lisa (University of Alabama)**

[238] *Mount Maloney People? Domestic Pots, Everyday Practice, and the Social Formation of the Classic Maya Xunantunich Polity*

Archaeologists who examine why identities emerge and how they are materialized commonly focus on economic competition, political relationships and elite symbols. I suggest that Xunantunich's most common pottery group, Mount Maloney, was a marker of socio-political affiliations, and examine factors that might explain why such humble pots were emblematic for Classic Maya people living in the Upper Belize Valley. I am more interested in how everyday

practices embedded a common pottery style with meaning than what this style might have signified to the ancient people or what the distribution of this style infers about Xunantunich as a political entity.

**Lee, Lori (Syracuse University) and Heath, Barbara (Thomas Jeffersons Poplar Forest)**

[31] *Memory, Race and Place: African American Landscapes at Poplar Forest*

Landscapes are interstices between space and place. Ideology is embedded in the built environment and reflected in proxemics. Modification of the physical landscape reveals insight into contemporary mental landscapes. This paper examines African American landscapes at a central Virginia plantation through a consideration of how memory informed the construction and experience of physical and social landscapes grounded in or descended from a system of institutionalized, race-based slavery. We further explore how these racialized landscapes act as frames of reference for recreating historical memory in the present.

**Lee, Wayne (University of Louisville), Rypkema, Heather (University of Louisville), Galaty, Michael (Millsaps College) and Haws, Jonathan (University of Louisville)**

[204] *A New Methodology for Rapid, In-Situ, Phosphate Analysis in Survey--A Case from Loudoun County, Virginia: Prospects and Problems*

This paper reports on a new technique for analyzing soil phosphate content in survey shovel test samples on a timescale comparable to that required for sieving the shovel test for artifacts. A spike in the detected phosphate in a given sample may be treated as a "positive" shovel test, allowing the team to alter their strategy accordingly, potentially circumventing false negatives. We describe the technique (portable spectrophotometric detection using acid digestion and rapid, calibrated malachite green/molybdate development), sample results from a site prospection problem, and discuss heretofore undiagnosed problems in the in situ analysis of soil phosphates.

**Lee, Wayne [146] see Galaty, Michael**

**Lees, William (University of West Florida)**

[6] *Florida's New Public Archaeology Network*

In 2004 the Florida Legislature approved and in 2005 provided continuing funding for the Florida Public Archaeology Network to be administered by the University of West Florida through a MOA with the Florida Division of Historical Resources. Regional public archaeology centers will be established throughout Florida to "help stem the rapid deterioration of this state's buried past and to expand public interest in archaeology." This will be achieved by a robust program of public education, through the promotion of archaeology-based heritage tourism, by involvement of the public through volunteerism, and through outreach to local government officials and land managers.

**LeFebvre, Michelle J. (University of Florida), Duchemin, Geoff (University of Florida) and deFrance, Susan D. (University of Florida)**

[89] *Fishing Variability in the Caribbean: Perspectives from the Antillean and Bahamian Islands*

The Caribbean islands posed many subsistence challenges to prehispanic inhabitants. Ceramic-age horticulturalists that migrated into the islands were confronted by distinct terrestrial and aquatic ecological habitats as they settled the various islands of the Lesser Antilles, the large land masses of the Greater Antilles, and the northern Bahamian islands. Initial colonists and subsequent generations incorporated collective knowledge of habitat variability in order to create and maintain fishing strategies that were conducive to the region's variability. In this presentation we examine the role of diachronic, spatial, and ecological variability in the formation and transformation of Caribbean fishing economies.

**Lefebvre, Michelle J. [239] see Giovas, Christina M.**

**Leftwich, Brent (UC Santa Barbara)**

[36] *Grinding It Out: Subsistence and Settlement in the Central Sierra*

In the wake of the dramatic 2004 Power Fire, an intensive survey occurred in the Mokelumne Archaeological District in Amador County, California, as part of a CRM project. This survey identified dozens of previously unknown prehistoric sites, as well as redefining numerous known ones. These sites were dominated by the use of bedrock mortars and associated sparse lithic scatters. This paper attempts to model land use patterns by juxtaposing acorn processing, topography, site size and type, site location, and ethnography.

**Legge, Anthony [71]** *see Moore, Andrew*

**Lekson, Stephen (University of Colorado)**

[205] *Continuity and Discontinuity in Pueblo Religion*

Because today's Pueblos are strongly traditional, archaeologists use modern Pueblo societies as models for ancient sites like Chaco Canyon. Pueblo history, however, was marked by significant disjunctures: migrations, wars, the rise and fall of cities and governments, waxing and waning of religious movements, interconnections with volatile Mesoamerica. Many aspects of modern Pueblo society may have developed in reaction to (and rejection of) historic events, ideas, decisions, and policies. This paper reviews several ancient episodes which marked major shifts in ideology and religion, and explores the implications for anthropological and political theory.

[240] *Discussant*

**Lengyel, Stacey [40]** *see Rosenstein, Dana Drake*

**Lenik, Stephan (Syracuse University) and Armstrong, Douglas (Syracuse University)**

[70] *Interpreting the Presence of Moravian Produced Slipware Pottery at Cinnamon Bay, St. John, U. S. Virgin Islands*

Excavations of a coastline settlement at Cinnamon Bay, St. John, U. S. Virgin Islands, have recovered evidence of one of the earliest occupations of the island. Included in the ceramic assemblage from this site is a type of slipware manufactured throughout central Europe and in eastern North America. Sharing this tradition were Moravians, who produced this pottery in Europe, Pennsylvania, and North Carolina. Moravian missionaries were active in the Virgin Islands from the 1720s, and the presence of this assemblage adds an additional facet to Moravian activities on St. John and suggests regional patterns of exchange.

**Lentz, David (Chicago Botanic Garden), Luis Alvarado, Jose (Instituto Nacional de Antropología e Historia) and Pohl, Mary (Florida State University)**

[158] *Ancient Use of Domesticated Sunflower (*Helianthus annuus* L.) in Mesoamerica*

Discoveries of ancient domesticated sunflower in Mexico have re-invigorated investigations into North American agricultural origins. It's long been thought that midwestern North America was the only center of sunflower domestication. Four-thousand-year-old domesticated sunflower from the San Andres site, data from the Cueva el Gallo site, and remains from other sites argue for the antiquity of Mesoamerican sunflower use. Accumulating data on sunflower use leads to questions of its place in ancient Mesoamerican subsistence practices. Contexts yielding sunflower have been from middens, implying primary use as a foodstuff, but ethnographic and iconographic information suggest other possibilities.

**Leone, Mark (University of Maryland ) [180]** *Discussant*; [26] *Discussant*

**Leonova, Natalia (Moscow State University)**

[83] *Whispers from the "Silent Majority"*

Detailed microstratigraphic data as well as spatial and contextual analyses of remains found at hunter-gatherer base camps constitute an important entre into diversifying the actors we envision in the deep past beyond hunting males. In this paper I use evidence recovered from the central portions of Upper Paleolithic sites in southern Russia pertaining to a) the different types of hearths (inside or outside of dwellings) and on b) the inventories surrounding the hearths to demonstrate that we can identify the loci of men's and women's work but that tasks performed by children are more elusive.

**Leslie, Shana (Arizona State University) and Passick, Todd (Arizona State University)**

[118] *Agave Types and Variability in the Agua Fria National Monument*

Agave has long been an important source of food and fiber for Southwestern peoples. Ethnobotanists have documented that people often extended the range of particular agave species by transplanting them in new habitats. On the Legacies project we have collected data on agaves at three 14th century sites in Agua Fria National Monument to determine the degree to which humans manipulated agaves in this area. This paper presents a typology for these agaves and discusses intrasite and intersite variability in agave types. Variability in agave types is hypothesized to result from different kinds of social relations within and among sites.

**LeTensorer, Jean-Marie [162]** *see Richter, Daniel*

Letot, Sunny [22] *see Schneider, Kent*

**LeTourneau, Philippe (BOAS, Inc.)**

[36] *Preliminary Results of 2005 Excavations at a Late Prehistoric Site on the Duwamish River, Washington*

Excavations at a well-preserved, stratified, late prehistoric site on the bank of the Duwamish River just south of Seattle provided abundant evidence of intensive fish and mammal processing. The site, 45K1703, consists of a sequence of fine-grained alluvial sediments with at least three superimposed stratigraphic units containing dense deposits of fire-modified rock, charcoal, and burned fish and mammal bone. Lithic artifacts include debitage and a tool assemblage dominated by unifacial scrapers. Summarized here are the results of geoarchaeological, faunal, palynological, paleobotanical, and lithic analyses.

**Leventhal, Richard M. (University of Pennsylvania Museum)**

[110] *Jim Hill, A Processual Archaeologist to the End*

Jim Hill was one of the most influential American archaeologists for almost thirty years. Throughout this time, Hill remained a strong positivist - even as processualism began to change. Finally, in the 1990's, Hill's understanding and acceptance of a post-modern perspective in archaeology began to change slightly. Within this paper, both texts and informal conversations between Leventhal and Hill will be examined in terms of Hill's theoretical perspectives. Hill's views will be contrasted to the changing theoretical constructs within both processualism and post-processualism and with the ideas of individuals such as Binford and Hodder.

[189] *Discussant*

**Levi, Laura (University of Texas at San Antonio)**

[238] *Houses and Society in the Maya Lowlands*

In Maya archaeology houses form the backdrop to several idealized models of cultural process. Maya houses, however, have far more tangible contributions to make. As physical dwellings, they were spatially individuated, architecturally varied and visually prominent. Maya iconographic representations in paint, stucco and stone were replete with house imagery. Importantly, the language of house dedication and renewal also was the language of rule. In a significant inversion of phenomenological cause and effect, the lives of houses animated the lives of people. This paper links the salience of houses to their material role in the organization of Maya society and polity.

**Levine, Abigail (University of California, Los Angeles)**

[95] *A Case for Local Ceramic Production in the Jequetepeque Valley during the Late Horizon*  
Ceramics excavated from Late Horizon mortuary contexts at Farfán, a Chimú administration center in the Jequetepeque Valley, provide evidence for local pottery manufacture. The analysis of mold-made Chimú-Inka monkey effigy vessels with respect to production, form, and style indicates a relatively high level of standardization for this sample, suggesting production by a single group of specialists. When the sample is extended to include vessels from Túcume, a center in the Leche Valley, metric and stylistic variation correspondingly increase, indicating the involvement of other specialists. These data suggest that Late Horizon fineware production occurred in local workshops rather than in a centralized facility, a pattern consistent with other studies of Inka pottery production from around the Central Andes.

**Levine, Marc N. (University of Colorado at Boulder)**

[67] *Preliminary Findings From Residential Excavations at Tututepec, a Late Postclassic Mixtec Capital on the Coast of Oaxaca*

Recent excavations at Late Postclassic Tututepec focused on two residential areas--one of low status and a second area of relatively higher social status. The excavations sought to examine the nature of Tututepec's political economy through a comparative analysis of artifact assemblages from the two residences reflecting variation in patterns of production, distribution and consumption. Ongoing artifact analyses are investigating Tututepec's participation in Late Postclassic interregional interaction networks. I discuss the preliminary results of the Tututepec excavations in light of theories of political economy presented by Smith and Berdan (2003) in "The Postclassic Mesoamerican World."

[67] *see Markens, Robert*

**Levine, Mary Ann (Franklin and Marshall College)**

[229] *Determining the Provenance of Native Copper Artifacts from Northeastern North America: A Reconsideration of Late Archaic and Early Woodland Procurement Models*

The emergence of archaeological interest in native copper in the mid-1800s developed in concert with explanations that privileged the Lake Superior area over other potential sources of copper. This paper challenges the dominant model for native copper procurement and presents trace element data derived from INAA to reveal the extent to which Northeastern hunter-gatherers utilized one dominant source of copper. I specifically report on the chemical characterization of copper from 13 discrete geological deposits and 19 archaeological sites dating to the Late Archaic and Early Woodland periods to suggest that the dominant model for native copper procurement is oversimplified.

**Lewis, Brandon (Santa Monica College), Carpenter, Maureen, Me-Bar, Yoav, Connell, Samuel and Gifford, Chad (Columbia University)**

[69] *The Role of Fortresses in Incan Expansion: Excavations at the Ecuadorian Site of Quitoloma*  
Incan expansion is well chronicled via the ethnohistoric and archaeological record. Nonetheless, the specific nature of conflict and subjugation remain debated. Excavation at the Ecuadorian fortress of Quitoloma is directed toward elucidating the dynamic nature of this conquest and the exact mechanisms of incorporation. Preliminary evidence from Quitoloma sheds light on the internal organization, function, length of occupation, and rate of abandonment of this massive site and its role in the northern expansion of the Incan empire.

**Lewis, Brandon [120]** see Valdez, Jr., Fred

**Lewis, Kenneth [43]** see Quates, E.W. Duane; [92] see O'Gorman, Jodie

**Lewis, Jr., Cecil M. (University of Michigan), Wilbur, Alicia K. (Arizona State University) and Buikstra, Jane E. (Arizona State University)**

[47] *Genetic Continuity of Prehistoric and Contemporary Communities in the South Central Andes Supported by Mitochondrial DNA*

The comparison of ancient and modern mitochondrial DNA offers a nuanced approach to examining the connections among prehistoric and contemporary communities. The presented study uses mitochondrial DNA haplogroup data from skeletal material originating from the sites of Chen Chen (~AD 850 to 1000) and Estuquiña (~AD 1300), and compares these data to those from 55 other ancient and contemporary Native South American communities. The comparisons support temporal and spatial genetic continuity among several South Central Andean groups beginning prior to the Tiwanaku expansion. The implications of these results for the origins and relationships of these groups are discussed.

**Lichtenberger, Randy (Thomas Jefferson's Poplar Forest)**

[247] *Remembering Thomas Jefferson in Landscape: Evidence for the Evolution of Historical Authenticity*

Archaeologists have collected a vast amount of landscape data from Thomas Jefferson's Poplar Forest plantation and retreat home in Bedford County, Virginia. The data relates to both the Jefferson-period plantation and its many post-Jefferson alterations. Successive owners of Poplar Forest chose to commemorate Jefferson through selective preservation and modification of the physical landscape, each preserving what they considered significant remnants of Jefferson's tenure. This paper represents a case study of the construction of historical authenticity as reflected in the archaeological and documentary evidence.

**Lieb, Brad R. [242]** see O'Hear, John W.

**Liebmann, Matt (University of Pennsylvania)**

[129] *The Spanish Colonial Period in the Lands of the "Backsliding, Apostate Rebels of the Jemez Nation"*

Spanish Colonization had a profound effect upon the Jemez province of northern New Mexico, yet this area has previously received little attention from either scholars of the Spanish borderlands or Southwestern archaeologists. This paper takes a new look at the 17th and early 18th centuries in the Jemez region, reconsidering traditional documentary-based histories in light of recent archaeological research. Evidence for large-scale changes in settlement patterns, material culture, economic relations, and political organization are examined in order to assess



the effects of colonization not only upon the local Puebloan populations, but Spaniards and Franciscans as well.

**Liebmann, Matt (University of Pennsylvania) [11]** *Discussant*

**Liestman, Terri [225]** *see Overturf, Jeff*

**Ligouis, Bertrand [143]** *see Schiegl, Solveig*

**Lilley, Ian (University of Queensland) [94]** *Discussant*

**Lilly, Jerry [42]** *see Britt, Tad*

**Lima, Helena (University of São Paulo) and Neves, Eduardo (University of São Paulo)**

[202] *Açutuba Phase: A New Ceramic Complex in Central Amazon*

The chronological sequence of central Amazon has been historically debated by competing models concerning mobility patterns of prehistoric settlements and the cultural and historical relationship between different ceramic complexes. The available data indicates that the first sites with ceramic remains seem to appear in the area around 300 BC, culturally related to the Barrancoid Tradition found in the Orinoco area (Venezuela). These evidences go strongly against the hypothesis that this was an ancient center of ceramic production in the continent. The data presented results from a 10 years research project in the confluence of Negro and Solimões rivers (Amazonas, Brazil).

**Lin, Hu (University of Chicago)**

[114] *Rethinking Urbanism: Cities of the Nomadic Khitan Empire in NE China (937-1109 AD)*

Archaeologists always associate urbanism with the development of settled agrarian societies and cities are regarded as the social, political, economic, and cultural centers. However, a close examination of the process of urbanization of the Xilamulun valley during the Khitan period reveals an opposite pattern. The valley was used as pastures for nomadic Khitans before the establishment of the empire. During the expansion, the Khitans took a large population of peasants and craftsmen from adjacent agricultural regions and resettled them in newly built walled settlements. Based on this peculiar case I call for a new perspective to understand urbanism.

**Linder-Linsley, Sue [242]** *see O'Hear, John W.*

**Lindly, John [197]** *see Shott, Michael*

**Lindsay, David (Society for American Archaeology) [45]** *Discussant*

**Lindsay, Ian (University of California, Santa Barbara), Smith, Adam T. (University of Chicago) and Greene, Alan (University of Chicago)**

[71] *Fortifications and the Naissance of Political Dynamism in Southern Caucasia (2nd and 1st Millennia BC)*

Archaeological discussions of fortifications are traditionally tethered to a broader discourse on warfare. Unlike the "City," which has undergone a sustained analytical critique destabilizing its pretensions to singularity, the "Fortress" is often cast in unifunctionalist terms that cloak its dynamic potential to produce complex sociopolitical landscapes. While not disregarding the martial ambitions of their occupants, this paper examines how fortresses shaped and ordered the social, political, and economic realities of ancient populations in southern Caucasia from the initial period of wide-scale fortress construction in the Late Bronze Age through the region's incorporation into the Urartian Empire.

**Lione, Brian (Department of Defense)**

[225] *The Department of Defense: Transforming the Business of Military Cultural Resources Data*

The Department of Defense is the third largest land managing agency in the United States, with responsibility for nearly 30 million acres nationwide. DoD is the proud steward of 75 National Historic Landmarks and over 600 National Register of Historic Places listings (comprised of over 19,000 historic properties). DoD additionally manages tens of thousands of Register-eligible historic properties, including archaeological sites. In this session, DoD will highlight the Military Cultural Resources Analysis Database and the Defense Installation Spatial Data Infrastructure

as current initiatives that utilize technology to better manage their vast cultural resources inventory.

**Lipe, Bill (Washington State Univ.)** [46] *Discussant*; [81] *Discussant*

**Lipo, Carl (California State University Long Beach)** [26] *Discussant*; [50] *see Hunt, Terry*

**Lipo, Carl (California State University Long Beach) and Hunt, Terry (University of Hawai'i)** [50] *The Cultural Phylogeny of Monumental Statues on Easter Island*

The monumental statues (moai) of Easter Island represent significant investment in cultural elaboration by the prehistoric islanders. Constructing explanations of these features requires generating measurements of temporal and spatial statue variability. Using a method based in cladistics and occurrence seriation we generate a phylogeny of the monumental statues. Our work evaluates a model of statue change in which diversity of styles and materials converges into more standardized forms, a pattern consistent with the consequence of costly signaling.

**Lippert, Dorothy (National Museum of Natural History)** [94] *Discussant*

**Lippi, Ronald D. (University of Wisconsin, Marathon County) and Gudino, Alejandra (University of Missouri)**

[219] *Sorting Out Yumbo, Inca, and Cosanga Wares at Palmitopamba, A Tropical Forest Site in Northwestern Ecuador*

The large tropical forest site of Palmitopamba in northwestern Ecuador provides an interesting case study for neutron activation analysis (NAA) of pottery given the presence of three distinctive wares in the late prehispanic period. Though it was a monumental site of a Yumbo chiefdom, there is Cosanga (aka "Panzaleo") pottery present in small quantities as well as Inca pottery and features from the late 15th century expansion into northern Ecuador. Analyses indicate that Yumbo potters probably were the makers of the provincial Inca wares, whereas the Cosanga vessels are exotic. The cultural and historical implications of this will be addressed.

**Little, Nicole C. (MURR), Kosakowsky, Laura J. (Dept. of Anthropology, U of Arizona) and Speakman, Robert J. (MURR)**

[87] *The Political Economy of Pots: Chemical and Typological Characterization of Classic Period Ceramics from Northwestern Belize*

Ceramics are among the most useful components of lowland Maya material culture assemblages for understanding the economic organization of and interactions between social units involved in production and distribution. In order to examine patterns of resource utilization and manufacture, INAA was used to generate compositional data from sherd and clay samples from the sites of Blue Creek and Ixno'ha, and surrounding hinterland settlements, and compared with INAA data from the Rio Bravo area in northwestern Belize. The results suggest a dynamic political economy that reflected shifting regional influences and expanding trade networks from the Early into the Late Classic periods.

**Little, Walter E. (SUNY-Albany)** [64] *Discussant*

**Livingood, Patrick (University of Michigan), O'Brien, Karen (University of Michigan), Krueger, Bradley A. (University of Michigan) and Prest, Margaret L. (University of Michigan)**

[42] *Digitizing University of Michigan's Museum of Anthropology Slide Collection*

The Museum of Anthropology at the University of Michigan is finalizing a multi-year project to digitize over 28,000 35mm slides in our collection. This collection was assembled for teaching and research purposes and includes a large number of images of fieldwork from the 1950's to the present. This poster will discuss the technology and procedures used to digitize the collection, will publicize the web site on which these images are available to the public, and will document the content of the collection. A laptop with the database and images will be available.

**Lizardi Pollock, Jorge** [161] *see Meléndez Ortíz, Sharon*

**Lizarraga, Karen**

[58] *Feminine Theory and Cultural Comparison*

The engendering of archaeology has evolved in a bipolar way. On one side, enveloped in shadow, is the study of archaeological artifacts as texts - format, figuration and color - to arrive

at the proper concepts transmitted by them. On the other side is the application of feminist theory, a priori, to the study of archaeology, trapped in the "logocentric labyrinth." In this way a unilateral concept of global has created a sense of cultural imperialism, a dual reality. Grounded in methodology developed by the Killka Project, this paper demonstrates how archaeolinguistic study of American recording systems is useful in making visible ancient models and nomenclature, laying ground for comparative cultural study, as well as converging identities.

**Lloyd, Christopher (Sonoma State University)**

[131] *Statistical Analyses of Lithics from the Coahuah Region*

This paper will detail statistical analyses of lithics excavated from sites throughout the Coahuah region. A lack of raw materials and intermediary lithics reduction suggests that lithics arrived pre-fashioned. Localities closer to the source had a better choice of lithics while those on the periphery had access to the leftovers. Exhausted cores, flakes, and block shatter suggest limited mineral resources. The use of statistical analyses allows us to see the difference in lithics size through time and space.

**Lockard, Gregory (Los Alamos National Laboratory/University of New Mexico)**

[12] *A Jungian Analysis of Moche Iconography*

Many of the more common themes and figures in Moche iconography can be interpreted as culture-specific symbols of what Carl Jung referred to as "archetypes." According to Jung, all humans have common inherited patterns of emotional and mental behavior, or archetypes. Symbolic manifestations of these archetypes, which include mythical and artistic themes and figures, can therefore be found in the material remains of prehistoric societies with figurative artistic traditions, such as the Moche. In this presentation, several well-known themes and figures in Moche iconography are identified as symbols of Jungian archetypes. Their meaning is then interpreted based on these identifications.

**Loendorf, Lawrence [165] see Billo, Evelyn**

**Loffler, German (WSU)**

[100] *Study and Use of Microblades in Producing Wood and Fiber Artifacts from the Qwu?gwes Site near Olympia, Washington*

The study and use of microblades in wood and fiber artifact production is underrepresented in archeological literature. Poor preservation of wood and fiber artifact in archeological records and the lack of "observable" procedures in their production contribute to this conundrum. Data from the Qwu?gwes waterlogged site (45TN240), near Olympia, Washington, and consultants/site co-managers from the Squaxin Island Tribe, allow analysis of microblades in wood and fiber artifact production. Ethnoarchaeology and experimental archaeology reveal how to harvest cherry bark strips with microblades; both common artifacts at Qwu?gwes. Results from lithic analysis from Qwu?gwes are compared to non-waterlogged, Northwest Coast sites.

**Logan, Blair [105] see Sutton, Hilleary**

**Lohse, Jon C. (University of Texas-Austin)**

[87] *Classic Maya Political Ecology in Upper Northwestern Belize*

The Blue Creek Regional Political Ecology Project examined Maya sociopolitical organization in upper northwestern Belize from 2001-2005. We recognize that populations in our study area responded to local, regional, and interregional factors. Our political ecology perspective therefore emphasizes environmental and agricultural change, diversity in settlement chronologies, household level decision-making, sourcing and technological trends in material culture, and urban trajectories reflecting elite strategies for integrating sustaining populations. Our approach centralizes the moral component of negotiated relations between elites and non-elites, involving reciprocal obligations and expectations, in viewing political life across the region and how it changed throughout the Classic period.

[87] see Luzzadder-Beach, Sheryl; [87] see Beach, Timothy; [87] see Padilla, Antonio E.

**Long, Darrel [74] see Julig, Patrick**

**Longstaffe, Fred J. [189] see Metcalfe, Jessica Z.; [236] see Spence, Michael**

**Lopes, Paulo do Canto (Museu Goeldi), Nascimento, I. (Museu Goeldi), Senna, C. (Museu Goeldi), Ruievo, M. L. (Museu Goeldi) and Gouvêa Luiz, J. (Universidade Federal do Pará)**  
 [90] *Linking Archaeology and Ethnoarchaeology: The Bauxite Project in Paragominas, Pará, Brazil*

The research seeks to characterize prehistoric, historic, and contemporary occupations in the vicinity of two archaeological sites in Pará state. To link archaeology and ethnoarchaeology, a study was made of the current inhabitants of the area focusing on aspects that contribute to the interpretation of the archaeological data such as resource use, soil management, crops, and cultivation methods. Production based on extractivism was investigated including the manufacture of utilitarian ceramics. This study involved local participants, and thus provided understandings of cultural and historical patrimony relevant to local communities.

**Lopez, Carlos (Universidad Tecnológica de Pereira)**

[77] *Salt, Gold and Copper in the Salado de Consotá (Pereira): Since Preceramic to Industrial Archaeology in Colombian Central Cordillera*

We report the discovery and preliminary excavation of a remarkable multicomponent archaeological site near the city of Pereira. A sequence buried by volcanic ashes indicates the presence of preceramic inhabitants (6000 BP context with edge ground cobbles). Besides two ceramic native occupations dated between 2500 BP to 1500 BP demonstrate specialized salt works. Spaniards described craft specialization in this area during the XV and XVI centuries. A brick oven built around 1840 was also excavated. Current research in the Salado de Consotá is bringing significant knowledge about the economic and socio-politic historical importance of this area of northern South America.

**Lopez Bravo, Roberto (University of Pittsburgh)**

[235] *Domestic Life and Ethnicity at Palenque, Mexico: A View from Classic Maya Elite Households*

Palenque --an important Maya capital of the Northwestern Region-- probably functioned as a multiethnic political center at the end of the Late Classic period, an event that allowed the insertion of Chontal and Yucatec linguistic elements into the Chol-related dynastic inscriptions. The analysis of Groups B, C and IV domestic materials--in conjunction with architectural form and function issues--has permitted to notice the existence of other ethnicity manifestations, the presence of social relations with foreigner groups and to catch a glimpse of urban diversity during the last 150 years of occupation (AD 700 -850).

**López Hernández, Haydeé (UNAM)**

[181] *Reading Cosmogenies in Stone: Enrique Juan Palacios (1881-1953) and Iconographic Studies*

Enrique Juan Palacios Mendoza fue uno de los primeros arqueólogos que laboraron institucionalmente en México tras la revolución. Su participación en los círculos intelectuales porfirianos le acercó al estudio de las culturas precolombinas y le permitió ingresar al Museo Nacional de Arqueología, Historia y Etnografía como arqueólogo. Durante toda su carrera, Palacios incursionó en diversas problemáticas y áreas de estudio, enfocándose a la lectura de las fuentes coloniales y los glifos esculpidos en piedra. Mantuvo así una estrecha relación y discusión con sus colegas en México y otros países. La ponencia revisa algunas de sus posturas teóricas, trabajos y polémicas.

**López Luján, Leonardo [185] see Ortiz, Agustín**

**López Varela, Sandra [185] see Dore, Christopher**

**López Varela, Sandra L. (Universidad Autonoma Estado de Morelos) and Dore, Christopher D.**

[185] *Hohokam Surfaces of Habitation, Social Space Analysis and Statistics*

In 2004, Statistical Research undertook excavations at a Hohokam settlement to study human activities at the San Lucas site in Marana, Arizona. The analysis of chemical residues in soil samples was one method that was used to examine interior and exterior space in a small architectural cluster. Map algebra, image analysis techniques, and spatial statistics were used to study the spatial structure and organization of activities. The results indicate that areas were used differentially and that structures had different functions. This contradicts the traditional archaeological interpretation that all Hohokam structures functioned as houses.

**Lopez-Bejarano, Jose Maria (University of Pennsylvania), Cortez, Gustavo (UMSA) and Heaton, Ashley (Tulane University)**

[163] *Long term Ritual Change at Tiwanaku*

Long-term monumental growth in congested urban centers requires that new constructions accommodate, modify or eliminate previous forms. The excavations between the Kalasasaya and the Chunchu Kala Complex show a history of modifications from the Formative period to the cessation of monumental construction. The effect of these modifications significantly altered patterns of movement and flow across the site and access to primary public ritual spaces, shedding light on resident elite strategy to transform and revalorize high profile public ritual space to the changing role of the polity of Tiwanaku.

**Lopez-Gonzalez, Celia (CIIDIR-IPN, Universidad Durango)**

[144] *Oscar J. Polaco, The Scientist*

The 2006 Fryxell Award for Interdisciplinary Research was granted to Oscar J. Polaco by the SAA. A symposium honoring the career and work of the awardee includes this brief presentation of his accomplishments in more than 25 years of research and service. His key contributions include 149 scientific publications and the mentoring of over 30 students in subjects as diverse as archaeozoology, paleontology, malacology, mammalogy, and acarology; a key role in the development of the Mexican legislation that protects the paleontological resources of the country, as well as an extensive editorial work in all these areas of knowledge.

**Lopez-Hurtado, Enrique (University of Pittsburgh) and Guzman, Martha (Universidad Mayor de San Marcos)**

[68] *The Emperor's New Pyramids: The Inka Takeover of the Lurin Valley*

In the ancient Andes, a number of large religious centers emerged at different times in history. These places were important shrines for the people who lived near them, and their religious power was also famous on a regional level. While such sites had much regional ideological power, it is not clear how this was articulated on a political and economic level. This paper explores the political and economic relations between the Sanctuary of Pachacamac located in the Peruvian Coast and the nearby site of Panquilma, and how these relations changed as a consequence of the Inka conquest of the region.

**Lopinot, Neal (Missouri State University) and Stackelbeck, Kary (University of Kentucky)**

[135] *Maximizing Research Potential of Refit Analysis without Replicating Pincevent: A Case Study from the Big Eddy Site in Southwest Missouri*

Refit analysis was conducted on nearly 3000 lithic artifacts from Early-Late Paleoindian deposits at the deeply buried, stratified Big Eddy site in southwest Missouri. This analysis was not part of the original research design for this project. As a result, provenience data for the collected materials was largely limited to 5-cm excavation levels or lithic knapping features. Despite the lack of fine-grained spatial data like those of the well-known Pincevent site in France, the results of the refit analysis indicated a high potential for yielding significant data on taphonomic processes, integrity of cultural deposits, and spatial organization of activities.

**Lopinot, Neal [217]** *see Ray, Jack H.*

**Lopiparo, Jeanne (University of California, Berkeley) [184]** *Discussant*

**Lopiparo, Jeanne (University of California, Berkeley) and Hendon, Julia (Gettysburg College)**

[147] *Honduran Figurine-Whistles in Context: Production, Use, and Meaning in the Lower Ulua Valley*

Excavation at multiple Classic to Terminal Classic period sites in the lower Ulua valley, Honduras, have amassed a sizeable collection of figurine-whistles from controlled contexts. Our research draws on secure provenience information to address issues of production, use, and social meaning by comparing evidence from contemporary habitation sites that range in size from large centers to small farming hamlets. We discuss evidence for multiple production locales, the role of figurine-whistles in ritual events at multiple social scales, and the significance of the spatial variation among sites in figurine-whistle imagery.

**Loren, Diana (Peabody Museum, Harvard University)**

[91] *Threads: Collecting Cloth in the North American French Colonies*

Trade of European-produced cloth and clothing enabled indigenous and non-indigenous

inhabitants of colonial New France to rethink the "hand-woven," impacting how self could be presented through dress. At the same time, objects were being collected in New France for cabinets of curiosities and museums. These different collections resonated in different ways through history, subsequently influencing modern understandings of colonial cloth and clothing. This paper examines colonial experiences of cloth by looking at archaeological remnants of cloth and cloth production as compared to how indigenous and non-indigenous colonial peoples were and are being represented by cloth and clothing in museum collections.

**Loubser, Johannes (New South Associates, Inc.) and Allsworth-Jones, Philip (University of the West Indies)**

[126] *Recordation and Conservation at the Warminster/Genus Rock Art Shelter, Jamaica*

The Warminster/Genus limestone rock shelter in southwestern Jamaica contains at least 62 pecked and carved prehistoric rock art motifs, most likely dating to between AD 1000 and 1500. Petroglyphs include owl-like faces, three faces grouped into one motif, clawed figures, a snake, a figure made of concentric rings, a figure with zigzag legs, and faces with skull-like features. Acrylic paint graffiti was removed from three panels. Community involvement, public visitation, and site interpretation are recommended management actions.

**Loubser, Johannes [249]** see Azzarello, Jennifer

**Louden, Elizabeth [62]** see Hughes, Karen; [62] see Hill, Glenn

**Loughlin, Michael (University of Kentucky) and Pool, Christopher (University of Kentucky)**

[23] *Olmec to Epi-Olmec in the Eastern Lower Papaloapan Basin*

Recent survey in the El Meson area and excavations at Tres Zapotes offer a new perspective on the Olmec occupation of the eastern lower Papaloapan basin and the transition to Epi-Olmec society. In this paper we discuss the implications of a newly defined Early Formative ceramic phase and the diachronic development of Early through Late Formative settlement patterns for variation in Gulf Olmec sociopolitical evolution. Differences in the orientation of external interaction networks and internal political dynamics resulted in the distinctive trajectory of western Olmec sociopolitical organization as compared to eastern centers.

**Love, Michael (CSU Northridge)**

[9] *Obsidian Procurement and Use in Formative Period Households in Pacific Guatemala*

Obsidian was essential to ancient Mesoamerican households and they pursued multiple strategies for its obtainment and use. In Formative Period Pacific Guatemala, obsidian was exchanged in many forms, most notably raw materials, used production at the household level, and prismatic blades, obtained in finished form. This paper compares obsidian use at the sites of La Blanca and El Ujuxte. La Blanca was a Middle Formative regional capita, while El Ujuxte emerged during the Late Formative. There were significant changes in household strategies over time, due largely to greater centralized control over the economy at El Ujuxte.

[9] see Guernsey, Julia

**Lovejoy, Owen [132]** see Meindl, Richard

**Lovis, William (Michigan State University), Hart, John (New York State Museum), Schulenberg, Janet (Pennsylvania State University) and Urquhart, Gerald (Michigan State University)**

[194] *Stable Isotope Analysis of Cooking Residues: Implications from Controlled Residue Replication Experiments*

The timing of maize's introduction into regions of eastern North America has been a long-standing topic of interest among archaeologists. Morton and Schwarcz (2004) investigated the timing of maize's introduction in Ontario through isotope analysis of charred cooking residues adhering to the interior of prehistoric pottery sherds. Their results suggest maize was incorporated into diets after AD 600. Here we assess their approach with stable carbon isotope assays on experimental cooking residues. Our results suggest that some prior knowledge of C3 plants and animals consumed is necessary to interpret stable carbon isotope values on prehistoric cooking residues.

**Lowe, Kelsey [163]** see Koons, Michele

Lowry, Justin [177] *see* Manahan, T. Kam

**Lozada, Maria Cecilia (University of Chicago), Rakita, Gordon F. M. (University of North Florida) and Buikstra, Jane E. (Arizona State University)**

[47] *Beyond Skeletal Age: Social Age among the Senorio of Chiribaya in Southern Peru*  
Age determination traditionally focused on chronological age, without any regard of the socio-cultural lenses that are often applied by modern and past societies to determine transitions between important stages of life. Previously, we have proposed that age would be a more meaningful interpretive tool if it incorporated contextualized socio-cultural perceptions of life stages. This notion of "social age" reflects the manner in which societies view an individual's role in society, and can only be determined through a multidisciplinary approach. Using ethnohistorical data, biological age assessments and associated mortuary offerings, we propose several "social age" categories among the Chiribaya of Southern Peru.

Luan, Fengshi [103] *see* Bowers, Robert; [194] *see* Lanehart, Rheta E.

Lucci, Michaela [16] *see* Coppa, Alfredo

**Lucero, Lisa J. (New Mexico State University)**

[110] *Revealing Social Lifeways "Processual" Style*

Jim Hill's Broken K Pueblo piece is classic because it demonstrates the scientific method. Many scholars were quick to critique the method as strongly as processual archaeology's theoretical leanings. I argue that it was too quick and that the hypothesis testing method still is critical in attempting to support current theoretical constructs of prehistoric lifeways. As Hill noted, many ideas, if not most, are stated as fact rather than demonstrated, a trend that continues. I present a case study on memorialization and ancient Maya commoner life to illustrate the significance of the scientific method in current archaeological thinking.

[110] *Discussant*

**Ludeña, Hugo (Universidad Nacional Federico Villarreal)**

[167] *The Cult of Pacha Mama in the Chillón Valley*

The cult of Pacha Mama at San Pedro de Mama was an important one in the Rímac Valley. It is likely that Bunea Vista was the center of the cult in the Chillón. The sculptures from the site are archaeological evidence of the agricultural cult of Pacha Mama in the Preceramic Period. The personified disk probably represents Pacha Mama, the sad mother who watched the symbolic combat between day and night. The two animal figures that flank the central personified disk sculpture may represent the two Wilcas, the children of Pacha-Mama and Pacha-Camac.

Lugliè, Carlo [30] *see* Tykot, Robert H.

**Lugo, Elba Anaco (El Consejo General de Taínos Boricanos)**

[123] *Caguana and the Spirit of Our Home*

As one of the many elders from the community concerned with the destruction and desecration of indigenous sanctuaries, archaeological sites, cemeteries, ancestral remains, sacred funerary and ceremonial objects, sacred places and ceremonial centers in Puerto Rico. Ms. Elba Anaco Lugo will share her experience of occupying the Caguana ceremonial site during the month of August 2005. She will discuss the need, purpose, and desired outcome for such urgent action as well as a summary of the discussions with relevant authorities which evolved as a result of the occupation.

**Luhman, Hope (The Louis Berger Group, Inc.), Gould, Delland (The Louis Berger Group, Inc.) and Vernay, Rick (The Louis Berger Group, Inc.)**

[97] *The Hudson Valley Archaic: Lessons of the Kingston Armory Site*

The Kingston Armory Site was excavated in response to proposed impacts associated with improvements at the facility, located in Ulster County, New York. The large-scale block excavations recovered a large number of artifacts and features that span the latter half of the Archaic Period (ca. 7000-3000 BP), including Otter Creek, Vergennes, and Frost Island phases. The shallowly buried deposits were found to be culturally stratified through the use of high-resolution recovery methods. A variety of tools along with steatite bowl fragments are present within the assemblage, providing evidence of diverse economies in the Esopus Creek watershed over roughly four millennia.

**Luis, Cabo [132]** *see Dirkmaat, Dennis*

**Luis Alvarado, Jose [158]** *see Lentz, David*

**Luiz, Jose Gouvea [77]** *see Pereira, Edithe*

**Lumbreras, Luis (Instituto Nacional de Cultura - Peru)**

[175] *La Condición Profesional de la Arqueología*

En los últimos años, a raíz de la aparición de legislación que regula la intervención urbana o rural sobre sitios arqueológicos, se ha introducido una práctica de traslado de la actividad arqueológica estrictamente académica a una actividad profesional ligada a propuestas comerciales, de obras públicas u otros, que han cambiado la fisonomía de la arqueología como quehacer.

**Luna, Gregory (Penn State University)**

[3] *Counting the Prehistoric Maya: A Spatial Analysis of Structures at La Milpa, Belize*

A recent population estimate for the Late/Terminal Classic period at the site of La Milpa used a straightforward method of multiplying structures (excluding pyramidal or single-wall linear structures) covering at least 15 square meters by 5 persons to extrapolate a figure of 62,166 persons for a 5km radius from the site center (after a 10% reduction for unoccupied structures). The present study performs a multi-scalar analysis using Ripley's K-function on published La Milpa settlement data to define possible residential units including clusters and "farmsteads." This analysis accounts for the spatial layout of Maya households for estimating prehistoric populations.

**Luna, Pilar (INAH)**

[200] *El Patrimonio Cultural Subacuático de México: Las Huellas que Nuestros Ancestros Dejaron Bajo las Aguas*

En 1980, el INAH creó un área de arqueología subacuática encargada de investigar, conservar y difundir lo relacionado con el patrimonio cultural que yace en aguas nacionales, tanto interiores como marinas. Desde entonces hemos realizado diversos proyectos, siempre multidisciplinarios y multinacionales, con apoyo internacional. Actualmente se llevan a cabo tres investigaciones que abarcan desde la época prehistórica hasta el presente. Hemos puesto especial énfasis en la capacitación de jóvenes investigadores y estudiantes, concientizando respecto a la existencia y valor cultural de este legado, olvidado durante tanto tiempo.

**Luna Calderon, Fernando [16]** *see Coppa, Alfredo*

**Lundberg, Emily R. (Independent Consultant) and Wild, Ken S. (Virgin Islands National Park)**

[176] *Virgin Islands Monserrate Complex: An Initial Understanding Emerges through Compliance Archaeology*

Recent investigations on St. John, U.S. Virgin Islands, exemplify compliance processes that substantially advance the understanding of prehistory, albeit within certain constraints. Two projects in particular have provided data about the heretofore poorly known Monserrate complex, commonly classified as early Elenan Ostionoid. Locally regulated mitigation work at Calabash Boom was administered by the SHPO, while work at Trunk Bay was done at the federal level by the Department of the Interior. Detailed vessel analysis describes the ceramic style and enables study of diachronic development. Dating supports the need for adjustment toward later dates in the post-Saladoid timescale.

**Lundin, Richard (Carothers Environmental, LLC) and Mann, Gary (Earth Imaging Geological Services)**

[183] *Three Case Studies of Field Verified Archaeogeophysical and Airborne Remote Sensing Studies Dealing with Sites in the US Southwest*

Recent advances in the use of archaeogeophysical studies (GPR, electromagnetics, radiometrics) have shown the facility of these technologies to find and image buried prehistoric and historic era Native American sites. Along with these advance have come advances in the analysis of sub-meter airborne imagery. Three case studies of use of these technologies in Arizona and California will be presented.

**Lundin, Richard [183]** *see Brackett, Claudia*



**Lunniss, Richard (Museo Salango) and McEwan, Colin (The British Museum)**

[119] *The Evolving Role of Interregional Exchange Among the Pre-Hispanic Polities of Coastal Ecuador*

Based on information obtained from excavated contexts at Salango and Agua Blanca in southern Manabi, we examine the changing role of interregional exchange among the Pre-Hispanic polities of coastal Ecuador over the course of two millennia from the Late Formative through to the pre-Contact Integration Period. We identify the principal commodities involved and trace their archaeological visibility at different stages in the cycle of procurement, processing, exchange, consumption and/or deposition. We conclude by addressing the dynamic relationship between exchange and ritual in fuelling evolving social-political complexity.

**Luzzadder-Beach, Sheryl (George Mason University), Beach, Timothy (Georgetown University), Lohse, Jon (University of Texas-Austin) and Millsbaugh, Sara (Georgetown University)**

[87] *Water Chemistry and Human Impacts on Environmental Change in Blue Creek, Belize*

Since 1994 we have investigated water chemistry and soils in wetlands and uplands of the Three Rivers Region of Northwestern Belize, to record the rate and extent of environmental changes, and to determine the interaction between the ancient Maya and their changing environment. We highlight results from 2001-2005 fieldwork in Blue Creek and place them in the broader Lowland Maya context. We present chemical, stratigraphic, and dating evidence that many regional depressions have Preclassic (1200 BC - AD 200) or earlier paleosols, buried from 1-2 m by ancient Maya induced erosion and from precipitating gypsum from rising groundwater.

**Luzzadder-Beach, Sheryl** [87] *see Beach, Timothy*; [177] *see Pope, Kevin*

**Lyman, R. Lee (University of Missouri-Columbia)**

[239] *Late Prehistoric Ungulates in the Portland Basin: Implications for Conservation Biology*

Roosevelt wapiti (*Cervus elaphus roosevelti*) from the Portland Basin dating between 1400 AD and 1835 AD are larger than modern wapiti. Deer (*Odocoileus* spp.) are no different in size than modern deer; size change in wapiti was not environmentally driven. Hybridization resulting from translocation of Rocky Mountain wapiti (*C. e. nelsoni*) in the 1930s produced smaller individual animals. Lack of change in abundances of Columbian black-tailed deer (*O. hemionus columbianus*) and the federally protected Columbian white-tailed deer (*O. virginianus leucurus*) coincident with decimation of the American Indian population suggests Euroamerican land use jeopardized the latter subspecies.

**Lynott, Mark (Midwest Archeological Center-NPS)**

[104] *Construction of Ohio Hopewell Earthen Walls: The Hopeton Works*

Five years of archaeological, geo-archaeological and geophysical research has produced data to explain when and how the large geometric earthen enclosures at the Hopeton Works in Ross County, Ohio were built. Analysis of eight trenches across earthen embankment walls has documented the tremendous energy that was expended in building the enclosure. The study has also shown that the enclosures reflect a complex cultural landscape that was largely built during the Middle Woodland period, but was used and modified by later peoples.

**Lyons, Patrick (Center for Desert Archaeology)** [93] *Discussant*

**Lyons, Patrick D.** [3] *see Hill, Brett*

**Maca, Allan (Colgate University) and Plank, Shannon (Boston University)**

[237] *Tomb 1 at Group 11K-6, El Bosque, Copan*

The discovery and excavation of Tomb 1, Group 11K-6 – possibly the largest barrio in ancient Copan – has illuminated the circumstances of the group's establishment as a monumental center, the probable seventh century massive landscape transformation in this sector, and the need for new conservation plans for unprotected areas of the ancient city. This paper presents the rationale and methodology of its excavation; describes the tomb contents; the tomb's contribution to comprehending the role of this extraordinary architectural complex; and draws out consequences for understanding Copan's socio-political dynamics during a poorly understood era in its history.

**Maca, Allan** [237] *see Plank, Shannon*

**MacDonald, Douglas (GAI Consultants, Inc.)**

[133] *The Role of Mobility and Lithic Raw Material Availability in Determining Tool Kit Size and Degree of Retouch*

Hunter-gatherers decide to replace or retouch existing tools depending on a variety of conditions. Mobility and lithic raw material availability often determine the size of the tool kit and the extent of tool retouch. In toolstone-rich settings, the size of curated toolkits and the degree of tool retouch may decrease in favor of expedient tool use. In toolstone-deficient environments, increased curated tool kit size and increased tool retouch likely reduced the risk of tool depletion. These hypotheses on retouch versus replacement decisions are tested utilizing stone tool data from prehistoric sites in the U.S. Mid-Atlantic region.

**MacDonald, Kevin (University College London) and Walicka-Zeh, Renata**

[169] *Segou, Slavery and the Sifinso: A First Archaeological Look at "The School of the Black Hair"*

Bamana Segou was the last of a long tradition of Pre-Colonial Mande States. Its power was founded upon "rights in persons" rather than in territory, and a breaking of stateless Mande gerontocracy. Its army was composed largely of "slaves." In this paper we examine for the first time archaeological traces of Segou's "Sifinso" or "Schools of the Black Hair," which likely served as locations of indoctrination for young captive individuals. We also consider the origins and broader political role of the Sifinso, and whether they were part of the initial policies of Biton Kulubali (reigned c.1712-55) or subsequent rulers.

**Machado, John (Chaffey College)**

[27] *Ritual and Ceremony at Las Higueras, Veracruz, Mexico*

This study reconstructs the ritual aims and function of ceremonial space at Las Higueras, Veracruz, Mexico (600-900 CE). It is the hypothesis of this study that the narrative sequences depicted in the murals of Structure 1 define specific uses of this space. The most complete narrative portraying a ritual festival that began in the site's ballcourt, continued into the plaza associated with Structure 1, and ultimately reached its conclusion within the temple superstructure of the pyramid is the focus of this paper.

**Machado, Juliana (MAE/USP)**

[202] *Approaches to Mound Formation Processes in Central Amazon, Brazil*

This paper attempts to discuss the results of a research on mound formation processes in a central amazonian context, Brazil. The complexity of the stratigraphy, pointing to earlier ceramic recycling, lead to the adoption of different approaches. The first took into account the life cycles of different artefactual groups throughout the stratigraphy intending to comprehend the dynamic processes involved on its composition differentiating moments of formation. The other approach intended to compare different site areas in order to test possible correlations between the mounds spacial disposition within the site, differential distribution of TPA, features and ceramic remains.

**Mack, Steven R. [103]** *see Habicht-Mauche, Judith A.*

**Mackey, Carol (California State University, Northridge) and Jauregui, Cesar (Universidad Nacional de Trujillo)**

[95] *Changes in Lambayeque Power Relations: The Perspective from Farfan*

The 4 km site of Farfan was previously thought to have been built and inhabited only by the Chimú Empire. However, recent research (1999-2004) revealed that the site was sequentially occupied from the 11th to the 16th centuries by three polities--Lambayeque, Chimú and Inka. Using Farfan as a venue, this study examines the changing power relations of the Lambayeque polity before and after the conquest of the two Empires. As the original inhabitants of Farfan the Lambayeque established a strong administrative presence. Their violent overthrow by the Chimú state contrasts with their later reincorporation under the Inka Empire. The results of these power fluctuations are manifested in the archaeological record in architecture, ceramics and burial patterns.

**Mackie, Alexander [132]** *see Richards, Michael*

**Macri, Martha (University of California, Davis) [37]** *Discussant*

**MacWilliams, A. C. [27]** *see Roney, John*

**Madden, Gwyn (Smithsonian Institution) and Riddle, Jennifer (Harry Reid Center for Environmental Studies)**

[132] *A Case Study in Recontextualization: The Role of Historic Materials Analysis*

FHUR 63 was a mummified individual housed at the University of Nevada, Las Vegas Collection whose context had been lost. As part of a larger study, the remains of this individual were analyzed using traditional physical anthropology techniques. That alone offered little information about the individual's life. Using historic materials analysis, full recontextualization of the individual was possible including, antiquity, ethnicity, habits, and occupation. Additionally, application of ethnohistoric methods to the case allowed for construction of the individual's narrative. This case shows that remains lacking context can be recontextualized, and the resultant narrative proves the valuable information they retain.

**Madden, Michael (USDA-Forest Service) and Duncan, Joshua (William and Mary)**

[243] *The Archaeology of Maycock's Point: An Anthropological Analysis*

In the age of post-modernity, anthropological archaeologists frequently jump to high levels of abstraction without first providing a solid foundation or understanding of site chronology and/or function. In this paper we will begin to build this solid foundation for the Maycock's Point Site (AD 200-900) in Prince George County Virginia via measurements of density and diversity of material culture as well "intensity" of settlement. We will move beyond issues of mobility and settlement towards questions of site function and social organization as they apply to the prehistory of the Middle Atlantic.

**Madden, Michael [243]** *see Barber, Michael B.*

**Magana, Marycruz (University of Guadalajara)**

[93] *Freshwater Shell Use from Chevelon Ruin*

Chevelon is unique among the Homol'ovi Cluster villages in being situated between two streams, the Little Colorado River and Chevelon Creek. Over 1200 pieces of freshwater and marine shell were analyzed from Chevelon. The most abundant is *Anodonta californiensis*, a mollusk that lived in the Little Colorado River and Chevelon Creek until 1956. The inhabitants of Chevelon utilized it as a food source and for the manufacture of pieces for adornment. This paper will focus on the context and types of artifacts and the manufacturing techniques used to produce them to contrast freshwater shell use to marine shell use.

**Magee, Catherine (Archaeological Conservator)**

[237] *Tomb Strategy: Conservators as Part of the Archaeological Team*

This paper provides a brief framework of archaeological conservation, discussing conservators' work within different types of archaeological excavations. Specific conservation projects conducted during the PAPAC 2005 season are highlighted to illustrate the collaboration and dialogue required between the conservator and the other members of the archaeological team.

**Maggard, Greg (University of Kentucky)**

[53] *Early Cultural Diversity in the Central Andes: The Fishtail and Paján Complexes of Northern Coastal Peru and Their Broader Implications*

In recent years, several important archaeological studies have provided new insights into the initial settlement and subsequent economic and technological regionalization that occurred in the Central Andes following the end of glacial conditions. These studies, coupled with a growing body of paleoenvironmental data, are beginning to shed light on the broader social, economic, and technological linkages between various early cultural expressions within the Andes. This paper discusses two of these early complexes--the Fishtail and Paján--within the context of early regionalization and economic diversification, as well as how these societies influenced cultural developments on the Peruvian north coast.

**Magne, Martin (Parks Canada), Christensen, Tina and Maxwell, John (Ethos Archaeology)**

[100] *Metric Comparisons of Microblade Cores from the Canadian West Coast*

Recent excavations of microblade sites at Elsie Lake on Vancouver Island and at Saltery Bay on the Sunshine Coast have greatly expanded the Canadian west coast sample. Saltery Bay provides a date of 6750 BP and Elsie Lake has a maximum date of ca. 6000 BP. Using data previously compiled for Haida Gwaii sites dating from 8900 to 7000 BP, and other published

and unpublished data, multivariate metric analyses are used to examine temporal trends in microblade core morphology.

**Magne, Martin [62]** *see* Wurtz, Michelle

**Magnoni, Aline (Tulane University)**

[119] *Trade at the Maya Urban Center of Chunchucmil, Yucatan, Mexico*

Trade has played a pivotal role in the rise of complex societies and the development of urban centers in the Americas and the world. This paper highlights the role played by trade at the site of Chunchucmil, Yucatan, Mexico, which grew to become a sprawling urban center in the middle of the Classic period (AD 400-650). The proximity of the site to the coast as well as to a variety of ecological areas facilitated participation in regional and interregional exchange networks and created favorable conditions for large numbers of residents to move into an otherwise agriculturally poor area.

[49] *see* Dahlin, Bruce H.

**Magri, Antoni [148]** *see* Francis, Joe

**Maillo, Jose Manuel [98]** *see* Bernaldo de Quiros, Federico

**Majewski, Teresita (Statistical Research, Inc.) [127]** *Discussant*

**Makarewicz, Cheryl (Harvard University)**

[215] *Fodder Provisioning and Animal Domestication Processes: d13C and d15N Analysis of Pre-Pottery Neolithic Goat Bone Collagen*

The process of animal domestication involves several choices in animal exploitation strategies. This research takes a completely new approach to investigating animal domestication processes by focusing on the role of fodder provisioning in early animal husbandry practices. Fodder provisioning, where humans obtain foodstuffs for animals in the form of either wild or cultivated plant material for the purposes of increasing the reliability and predictability of animal resources, was likely a crucial aspect of emergent animal husbandry practices. Using carbon and nitrogen stable isotopic analyses, emergent foddering practices in goats are investigated in Southern Levantine Pre-Pottery Neolithic contexts.

**Makowski, Krzysztof (Universidad Catolica del Peru), Ghezzi, Ivan (Universidad Catolica del Peru) and Neff, Hector (California State University, Long Beach)**

[219] *LA-ICPMS Analysis of Ceramics from Pueblo Viejo (Lurin, Peru): Discussion of Results*

It is often assumed in ceramic studies that there is a direct relationship between style and ethnic identity. In this paper, the spatial/temporal distribution of ceramic styles from Pueblo Viejo-Pucara, an Inca period settlement in the Lurin valley of Peru, is considered instead as the reflection of the political, economic and ideological relations in society. Potters can mimic, copy or borrow forms, finishing techniques and designs, while maintaining their paste recipes. Therefore, in order to map the boundaries of ethnic identity, we employ the concept of technological tradition as a better indicator than style.

**Malafouris, Lambros (The McDonald Institute for Archaeological Research Cambridge University)**

[111] *The Body in the Mind: Material Engagement and Embodied Cognition*

The general idea behind embodied cognition is quite simple; the body is not a passive container of the human mind but an integral component of the way we think. In other words, the mind does not inhabit the body, it is rather the body that inhabits the mind as the main perturbatory channel through which the constitutive intertwining of cognition with material culture is effected. In this paper using examples from the Aegean of the late Bronze Age I want to explore the implications of such a thesis for the archaeology of mind and the category of the Mycenaean person.

**Malbrán Porto, América (Facultad de Filosofía y Letras UNAM) and Encinas Hernández, Ivon Cristina (Facultad de Filosofía y Letras UNAM)**

[181] *Nahua Migrations from Mexico to Nicaragua: A Problem of Texts or of Archaeology?*

El estudio de las fuentes históricas de Mesoamérica y la arqueología de Nicaragua, ha servido para tratar de explicar la presencia de pobladores nahuas fuera de su territorio, lo que ha generando acuerdos y oposiciones entre los especialistas. Se revisan las hipótesis establecidas, las contradicciones entre ellas y la manera en que los arqueólogos han establecido un

mecanismo de centro-periferia que desde hace un siglo explica muchas situaciones que al parecer son bastante más complejas.

**Malca Cardoza, Hernando (Universidad Nacional de Trujillo) and Mantha, Alexis (University of Michigan)**

[212] *Living with the Dead: Household, Mortuary Practice and Identity in the Late Prehispanic Rapayán Valley, Upper Marañón Drainage*

Our presentation will deal with groups who developed in the Rapayán Valley during the LIP/LH. In 2001 and 2002, we conducted a survey covering 320 km<sup>2</sup> during which we studied 55 sites. The well preserved households at these sites possess large niches that were constructed to host the remains of the dead. Excavations conducted in 2005 confirmed that the living systematically cohabited with the deceased within each household. This very particular pattern will be compared to the ones found in neighboring valleys in order to explore matters of social identity in the Upper Marañón drainage at large.

**Maldonado, Blanca (Penn State University)**

[193] *A Tentative Model of the Organization of Copper Production in the Tarascan State*

Numerous questions arise from the notion that metal items functioned as wealth finance in the economy of the Tarascan state of Late Postclassic Michoacan. Foremost among these is how wealth was produced and controlled by the central power. The present paper combines archaeological and ethnohistorical data to propose a model for prehispanic copper production among the Tarascans. The goal of this analysis is to gain insights into the nature of metal production and its role in the major state apparatus. This will also provide clues to a better understanding of the development of technology and political economy in ancient Mesoamerica.

**Maldonado Cardenas, Ruben [177] see Ochoa-Winemiller, Virginia**

**Malloy, Maureen [38] see Jeppson, Patrice L.**

**Malone, Caroline [111] see Stoddart, Simon**

**Malpass, Michael (Ithaca College) and Richardson, James, III (Carnegie Museum, University of Pittsburgh)**

[53] *Central Andean Preceramic Studies at the Beginning of the 21st Century: An Introduction* Preceramic studies in the Central Andes began in the 1940s, but gained momentum in the late 1960s. Two main research foci emerged over subsequent decades: (1) how early did maritime resource exploitation begin, and how did it affect the emergence of complex societies? and (2) what was the relationship between coastal and highland groups in each area, related also to the development of complexity and exchange of ideology? Related questions involved the role of climate change and eustatic sea level rise. This symposium will present both synthetic papers and new data that advance our understanding of this significant time period.

**Manahan, T. Kam (Universidad Autonoma de Campeche), Ardren, Traci (University of Miami), Lowry, Justin (SUNY Albany), Stockdell, Eric (Indiana University) and Workinger, Andrew (University of Tennessee Chattanooga)**

[177] *Defining Chichen Itza's Regional Influence: Recent Settlement Pattern Research from Xuenkal, Yucatan, Mexico*

Although Chichen Itza's center has been extensively studied, few investigations have examined its constituent secondary centers. Proyecto Arqueológico Xuenkal seeks to systematically investigate the nature of Chichen Itza's influence over Xuenkal, the Cupul region's largest settlement. Xuenkal's control likely held both economic importance, owing to locally dense natural resources, and political significance, given Xuenkal's strategic location halfway between Chichen and Isla Cerritos plus near rival polity Ek Balam. Initial findings suggest that longstanding regional patterns of architecture and settlement were favored over replication of Chichen-style architectural groups. We present preliminary research results from Xuenkal and evaluate them within a regional perspective.

**Manaseryan, Nina [28] see Piro, Jennifer**

**Mankowski, George [5] see Sievert, April**

**Mann, Gary [183]** *see Lundin, Richard*

**Mann, Rob (University of Southern Indiana)**

[13] *"They are Fit to Eat the Divel and Smoak his Mother:" Labor, Leisure, and Smoking among Canadien Voyageurs*

Smoking "une pipe" was more than simply a leisurely practice among Canadian voyageurs. Rather, smoking played an active role in the struggle over the terms and conditions of the fur trade workplace. Clay pipes were key material symbols of male Canadien identity and were even celebrated in the voyager's chansons—songs used to keep time as they paddled. Fur trade elites (the bourgeois), however, tended to link smoking with "laziness," a powerful trope in capitalist discourse. This paper examines the practice of smoking among the voyageurs and the role of pipes in mediating class tensions and reproducing Canadien identity.

**Manson, Joni (Heritage Education & Research Services) and Snyder, David**

[43] *Thermal Diffusivity Testing of Sherds from Gartner Mound and Village, Ohio*

Thermal diffusivity is a measure of the ease with which heat is transferred through a vessel's walls. Pots with high diffusivity are very effective for boiling and simmering, techniques often used to cook starchy seeds to increase their palatability and digestibility. Changes in ceramic attributes related to heating effectiveness may reflect dietary changes associated with a greater reliance on starchy plant cultigens. Sherds from the Gartner Site were tested to compare the heating effectiveness of Woodland and Fort Ancient period pottery. The data may shed light on the shift to a maize-based economy in late prehistoric Ohio.

**Mantha, Alexis (University of Michigan)**

[51] *Ancestor Veneration and Political Competition in the Rapayán Valley, Upper Marañón Drainage*

LIP settlements at Rapayán are characterized by various types of above ground mortuary constructions. Among these, the large multistory buildings, which were constructed to host the founding ancestor of each community, contrasts with the LIP Andean panorama because of their truly monumental scale. The emergence and the distribution of such monuments throughout the Rapayán landscape provide information into how ancestor veneration ideology and claims of primordial descent were increasingly being manipulated in order to reach political ends. The Rapayán data thus provide insights into how the widespread pattern of ancestor veneration participated locally into a process of growing political complexity.

[212] *see Malca Cardoza, Hernando*

**Manzanilla, Linda (UNAM)**

[235] *Corporate Life in Apartment and Barrio Compounds at Teotihuacan, Central Mexico: Specialization, Hierarchy and Ethnicity*

I will compare data on access to resources both local and allochthonous, the archaeological indicators of craft specialization, and data related to ethnic identity in apartment and barrio compounds at Teotihuacan, particularly Oztoyahualco 15B:N6W3 and Teopanazco (some of the few compounds excavated extensively at present, and analyzed in my interdisciplinary projects). In this analysis, the barrio compound emerges as an intermediate unit, probably related to the most powerful lineages in each neighborhood, that may have undertaken independent economic strategies with other regions in Mesoamerica, particularly the Gulf Coast and perhaps Guerrero, that may have competed with the state political economy.

**Mapes, Sarah [118]** *see Schollmeyer, Karen Gust*

**Marciniak, Arkadiusz (University of Poznan)**

[55] *Households and Communities in Central European Neolithic*

The paper aims to challenge the modular conception of Central European Neolithic societies as composed of autonomous households occupying discrete residences and performing most domestic activities in the house. It explores other forms of social organisation such as the neighborhood and the local community. It further scrutinizes multiple forms in which households occurred in Central European Neolithic and the manner in which they were embedded in larger social associations. It is argued that household became autonomous and clearly bonded entity only towards the end of the early Neolithic in this region.

**Marcone, Giancarlo (University of Pittsburgh)**

[152] *Agriculture, Political Strategy or Environmental Adaptation*

Societies maintain power over others through the development of strategies. These strategies

are the result of the interaction of economical, political, and ideological goals. We wonder if the changes in agricultural systems are expressions of the strategies' economic goals or if they are the expression of contact with a specific environment. The main concern is how the strategies shape changes in environments or how the environments shape the strategies. We will use three societies. The first is the local political group in Cieneguilla (coast of Peru). On a larger scale, we have the Spanish, and finally the Inkas.

**Marcus, Joyce (University of Michigan) [221] *Discussant*; [235] *Discussant***

**Marean, Curtis (Arizona State University), Bar-Matthews, Miryam (Geological Survey of Israel), Goldberg, Paul (Boston University), Jacobs, Zenobia (Quaternary Dating Research Unit, Council for Science and Industrial Research, South Africa) and Karkanas [59] *Recent Results from Archaeological and Geological Fieldwork at Pinnacle Point (Mossel Bay, South Africa)***

Fieldwork at Pinnacle Point near Mossel Bay (South Africa) has revealed a rich archaeological and geological record for human behavior, paleoclimates, and paleoenvironments during the Middle Stone Age. That record includes a wide series of caves and open-air localities with outstanding geological records for changing sea levels and sedimentary systems. Here we review a wide series of new chronometric dates and archaeological and geological results, and describe our preliminary reconstructions of changing climatic and environmental conditions.

**Marean, Curtis [40] *see Bernatchez, Jocelyn*; [59] *see Lassiter, Erin***

**Margomenou, Despina (University of Michigan, Ann Arbor)**

**[201] *Food Storage and the Emergence of Institutionalized Inequality: The Case of Late Bronze Age Northern Greece (1700/1500-700BC)***

This paper investigates the Late Bronze-Early Iron Age communities of central Northern Greece. The remains of large storerooms have been considered one of the most significant sets of evidence for the presence of complexity in the region. It is argued here that such assessments need to be re-evaluated in terms of a systematic study of the role of storage within non-state economies. New evidence regarding storage from the site of Thessaloniki Toumba is presented within such a framework.

**Marin, Ana Belen [150] *see Stewart, Elizabeth***

**Mark, Robert (Rupestrian CyberServices) and Billo, Evelyn (Rupestrian CyberServices)**

**[196] *Digital Image Techniques (Enhancement, Stitching, Databases)***

Advances in computer science and technology provide tools for rock art documentation and research. These include: (1.) Digital image enhancement: Applying Adobe Photoshop and other software such as decorrelation stretch to enhance rock art photographs permits observation of details not otherwise visible. (2.) Stitching photographs: Image stitching software permits the assemblage of mosaics and panoramas on spherical, as well as cylindrical projections. (3.) Image databases: Image database software permits convenient cataloging of numerous images, including capturing digital photograph metadata. Custom fields can be added to facilitate image selection and research analysis.

**Mark, Robert [165] *see Billo, Evelyn***

**Markens, Robert (Centro INAH Oaxaca) and Levine, Marc N. (University of Colorado at Boulder)**

**[67] *A Brief Overview of Research on Postclassic Period Oaxaca and Its Relationship to Mesoamerica***

The Postclassic Period in Oaxaca is one of the intervals least well known archaeologically. Much of our understanding of the Postclassic is based on historical models derived from Prehispanic and Colonial Era documents. Only recently have archaeologists turned their attention to the Postclassic in a number of Oaxaca's regions, establishing or refining chronologies and collecting information on household organization that make this symposium possible. We present in this introduction a brief history of research on Postclassic Period Oaxaca, focusing on the models researchers have used to conceptualize the Postclassic in Oaxaca and its relationship to the rest of Mesoamerica.

**Markens, Robert [67] *see Martínez López, Cira***

**Markovics, Michelle (Florida State University)**[141] *A Bioarchaeological Analysis of Bodrogkeresztúr Burials from Gyula 114, Hungary*

This poster will present mortuary data from Gyula 114, a Middle Copper Age site located in Southeastern Hungary. Both archaeological and biological data will be presented regarding the prehistoric human health, mortuary practices and social patterns of this region. In particular, local burial patterns, epigenetic variation, and dental pathologies will be addressed.

**Marks, Anthony [59]** *see Conard, Nicholas*

**Marozzi, Oscar and Jose, Iriarte (University of Exeter)**[113] *Early Formative Public Architecture in Southeastern Uruguay, La Plata Basin*

This paper examines the social construction and transformation of early Formative circular-shaped mound complexes in southeastern Uruguay during the mid-Holocene around 4000 BP. Archaeological site layouts, the role of public/plaza spaces, and the elaboration of differential mounded architecture are discussed. The circular villages of the ethnographically documented Ge and Arawak groups of lowland South America are used as a point of departure to explore the social and political organization of these early Formative communities.

**Marshall, Maureen (University of Chicago) and Popova, Laura (University of Chicago)**[71] *The Kurgan Complex: Coming to Terms with Middle Bronze Age Burials in the Volga-Ural Region*

Bronze Age Archaeology in Russia relies on the study of burial mounds. These monumental burial sites have been used to explain everything from the spread of language groups to socio-political complexity. During the Middle Bronze Age in the Volga-Ural region the ostentatious kurgan burials are the basis of particular arguments about social hierarchy and modes of production. This paper will examine two kurgan burials that look roughly similar, but are interpreted as belonging to two separate cultures with seemingly different settlement and subsistence strategies. These interpretations affect not only how settlements are interpreted but how cultures are defined.

**Martin, Louise [28]** *see Twiss, Kathryn*; [178] *see Bogaard, Amy*; [215] *see Russell, Nerissa*

**Martin, Terrance [5]** *see Hargrave, Michael*

**Martínez, Natalia [224]** *see Sanchez, Guadalupe*

**Martínez, Horacio [179]** *see Silverstein, Jay*

**Martínez López, Cira (Centro INAH Oaxaca) and Markens, Robert (Centro INAH Oaxaca)**[67] *The Valley of Oaxaca and Mesoamerica during the Postclassic Period: Household Excavations at Lambityeco, Macuixóchitl and Xaagá*

We report on recently completed large-scale excavations in three Valley of Oaxaca Prehispanic communities spanning the Early Postclassic (AD 800-1200) to Early Colonial Periods (AD 1521-1600). The excavation of a large number of residences and activity areas from Lambityeco, Macuixóchitl and Xaagá provide information on changing household specialization during this interval. We reflect on the utility of world systems theory in accounting for these changes.

**Martínez-Cruzado, Juan Carlos (University of Puerto Rico - Mayaguez)**[84] *MtDNA Clues to the Peopling of the Caribbean*

The haplogroup identity of 489 Amerindian mitochondria DNAs (mtDNAs) from Puerto Rico were obtained through RFLP. Haplogroup A (52.4%) was shown to be the most frequent, followed by haplogroups C (35.6%), B (8.6%) and D (3.5%). Studies involving coding region RFLP, control region sequencing, and comparative analysis with Amerindian mtDNAs from elsewhere suggested that approximately 13% of Amerindian mtDNAs in Puerto Rico originate from outside of the island. Furthermore, only 7-8 maternal lineages gave rise to the Puerto Rico Tainos and at least 2-3 of them arrived by way of Hispaniola. One was identified as South American in origin.

**Martínez-Yrizar, Diana (IIA/UNAM, Mexico) and Adriano-Morán, Cristina (IIA)**[158] *Exploring Relations between Plants and the Prehispanic Inhabitants of Teotihuacan*

Paleoethnobotanical research carried out in Teotihuacan provides information on the uses of the plants and the impact their exploitation has on the environment. Nevertheless, such studies have



not focused on/or explored the possible relations between the plants and the inhabitants of the city, the forms of acquisition and distribution of the resources between different social and ethnic groups that conformed Teotihuacan society, or the different meanings that the same plants could have among them. The objective of this presentation is to propose some hypothesis of how plant-human relations could be established and how to recognize them in the archaeological record.

**Martinón-Torres, Marcos (UCL Institute at Archaeology, London, UK), Cooper, Jago (UCL Institute of Archaeology, London, UK) and Valcarcel Rojas, Roberto (Departamento Centro-Oriente de Arqueología, Holguín, Cuba)**

[16] *American Gold and European Brass: An Archaeometallurgical Study of Ornaments from the Cemetery of El Chorro de Maíta, Cuba*

This paper outlines the results of the first systematic analytical study conducted on archaeological metals from Cuba, using ED-XRF, optical microscopy and SEM-EDS. The main focus of the study consists of body ornaments excavated at the large cemetery of El Chorro de Maíta, Cuba. Some comparative samples from the nearby site of Alcala were also investigated, with an emphasis made on the manufacture, composition and origins or the different alloys. The results of this archaeometallurgical approach offer fresh insight into the relationships between the Europeans and the indigenous populations, their trade systems and the influence exerted by the colonisers on local customs and values.

**Martos, Luis Alberto (INAH)**

[200] ¿"Perro Blanco" o "La Tortuga?": *Datos Recientes Sobre Plan de Ayutla, Chiapas*

El sitio arqueológico Plan de Ayutla se localiza en la región del Alto Usumacinta, zona clave entre las áreas de dos potencias como fueron Piedras Negras y Yaxchilán, cerca de sitios como Bonampak y Lakanhá. Este llama la atención por la complejidad del asentamiento, su calidad arquitectónica y larga secuencia de ocupación, y la intrigante inscripción localizada en uno de los edificios. Presento los resultados de tres temporadas de campo, donde se discuten posibilidades y hago propuestas sobre la identidad y papel político que este sitio desempeñó.

[200] *Discussant*

**Maschner, Herbert [204] see Misarti, Nicole**

**Masson, Marilyn [49] see Hare, Timothy**

**Masson, Marilyn A. (University at Albany-SUNY), Hare, Timothy S. (Morehead State University) and Peraza Lope, Carlos (Centro INAH-Yucatan)**

[177] *The Political Economy of Mayapan*

Our distribution analysis of artifacts from hundreds of residential groups at Mayapan identifies concentrations indicative of occupational specialization across the city. These data also attest to occupational duration and intensity, which lessened with distance from the site's monumental center. To assess the relationship between production behavior and social class, we analyze artifact distributions associated with different types and size classes of domestic groups. We argue that production in basic goods was commonplace at Mayapan, by extension, a relatively autonomous political economy is reflected. Implicit in these patterns is the guiding hand of Mayapan's governors in centralizing production at the city.

**Massouh, Paula (American University)**

[108] *Household Organization and Function at the L/102 Site: A Largo-Gallina Site in Rio Arriba County, New Mexico*

While the L/102 site, a Largo-Gallina site located in Rio Arriba County, New Mexico, was excavated in 1972 and 1973, its artifacts and associated records have never been extensively researched. Furthermore, while archaeologists have researched households in the prehistoric American Southwest and in other locations, no definitive study exists that pertains to a Largo-Gallina household. Therefore, this poster presentation will demonstrate how architecture, artifacts and associated records from the site are being used to develop a definition of a Largo-Gallina household, to ascertain possible household activities that took place and to infer social, economic and political interactions at the site.

**Mastache, Alba Guadalupe [173] see Cobeau, Robert**

**Masucci, Maria (Drew University) and Neff, Hector (CSU, Long Beach)**[219] *Ceramic Production and Societal Change in the Manteno of Coastal Ecuador*

Elaborate black-polished ceramics mark the Manteno style of late period coastal Ecuador. Stylistic similarities in these decorated wares suggest the Manteno system may have included the spread of new ritual practices with centralized ceramic production and trade. Alternatively these ceramics may be evidence of elite emulation or even the establishment of Manteno enclaves. Analyses of Manteno ceramics and local resources using INAA and petrographic analysis provide information on these related issues of the origin and nature of Manteno society. Results suggest that local production continued with central coast centers as sources of storage jars and fineware ceramics.

**Matchen, Paul (TRC Environmental)**[250] *Utilitarian Bone Button Classification: A Technological Approach*

In North America, utilitarian bone buttons are primarily associated with eighteenth and nineteenth century contexts. This, combined with a classification scheme reliant upon buttonhole number, button diameter, and face recess presence, has served as a rudimentary chronology. This scheme is too simplistic and discounts advances in past technology. Using U.S. Patent archives and technological data, a taxonomic structure is proposed for utilitarian bone buttons based upon the recognition of physical characteristics with incident light and scanning electron microscopy. The intention is to emphasize the potential of using technological characteristics in revising the chronological scheme for these artifacts.

**Mathews, Jennifer [177]** *see Fedick, Scott***Mathien, Joan [57]** *see Hull, Sharon***Mathieu, James (Expedition Magazine)**[41] *A Castle at the Cultural Crossroads: Jerba's Burj al-Ghazi Mustafa in Context*

The architectural remains of Burj al-Ghazi Mustafa, the main fortification on the Tunisian Island of Jerba, show a fascinating development over time. Located at a major cultural crossroads of the medieval Mediterranean world, this building was modified time and again to fit the needs of the forces (Arab, Norman, Spanish, Ottoman) who occupied Jerba throughout its history. Using architectural, cross-cultural, and historical analyses, this poster presents the evidence for its origins, development, and use over time, highlighting the changing cultural and functional character of this monument, while emphasizing its continuing role as a tool of foreign occupation.

**Mathiowetz, Michael [140]** *see Ohnerson, Michael***Matney, Timothy [42]** *see Whitman, Linda***Matternes, Hugh (New South Associates, Inc.)**[249] *Burning Questions About Human Remains from Ten Mile Creek*

Fragmentary and extensively burned human remains were recovered from a sheet midden at Site 8SL1181 along Ten Mile Creek. The associated layers date from the Late Archaic II to East Okeechobee I periods. Given that intentional human cremation was not a typical body treatment for this region, the presence of burned bone has not been formally addressed. The following three alternative models are considered: 1) formal cremation and intentional scattering; 2. intentional burning; or 3) accidental inclusion with other refuse.

**Matthews, Julianna [164]** *see White, Christine***Mattox, Wesley [163]** *see Vranich, Alexei***Mauldin, Devon and Nelson, Kit**[168] *Spatial Orientation and Directionality of Late Preceramic Sites in the Fortaleza Valley, Central Coastal Peru*

An impressive number of Late Preceramic (2800 - 1800 BC) sites have recently been documented in the Fortaleza Valley of Central Coastal Peru. This paper presents an analysis of the spatial orientation and directionality of these occupations, with particular attention to geographic location, overall site layout, and volume and height of structures. Such comparisons within the valley shed light on social dynamics and settlement patterns, and contribute valuable evidence to the current discussion on the early stages of complex social organization in the entire area.

**Maxwell, David (Statistical Research, Inc.) and Grenda, Donn R. (Statistical Research, Inc.)**  
 [79] *Cultural Responses to Short-Term Environmental Fluctuations: Late Prehistoric Adaptation on San Nicolas Island, California*

Testing at a midden site on San Nicolas Island, southern California, produced a wealth of features indicative of repeated short-term occupations over a period of several hundred years. Evidence strongly suggests that this occupation overlapped and included one or more El Niño events. Analysis of these features and associated material remains suggests that human response to this environmental fluctuation involved only a "tweaking" of routine behaviors, rather than a dramatic shift in social structure. This serves as a marked contrast to evidence from the northern Channel Islands, where societal change is seen as a direct result of environmental stress.

**Maxwell, Jay [164]** *see White, Christine*

**Maxwell, John [100]** *see Magne, Martin*

**May, David W. [217]** *see Hill, Matthew G.*

**May, J. Alan [203]** *see Keene, Deborah*

**May Ciau, Rossana (FCA-UADY), Gallareta Negron, Tomas (INAH), Bey, George (Millsaps College), Ringle, William (Davidson College), Gunn, Christopher (University of Kentucky) and Ceballos Gallareta, Teresa (INAH)**

[207] *New Perspectives on the Origins of Monumentality in the Northern Maya Lowlands*  
 Recent research has produced new evidence on the origins of monumentality in the northern Maya lowlands. It is now known that by the second half of the Middle Formative (800-400 BC) there was widespread occupation throughout the region. Site hierarchies, ball courts, monumental architecture and the construction of sacbes are found. Also at several centers huge acropolises were constructed. This paper examines the origins of monumentality in this region and how it relates to events in greater Mesoamerica. It also discusses what the evidence indicates about the rise of sociopolitical complexity in the northern Maya lowlands.

**Mayfield, Tracie (DePaul University), Hasso, Jennifer (DePaul University) and Baxter, Jane Eva (DePaul University)**

[5] *When is a Carriage House More than Just a Carriage House?: Examining Landscapes of Power in George Pullman's "Industrial Utopia"*

From 1880-1881, George M. Pullman oversaw the construction of his "industrial utopia," a complex of worker homes, public facilities, and industrial complexes designed to revolutionize the practice of industry in America. These carefully constructed landscapes tell us much about class relations during this period of paternalistic capitalism. In this presentation, we examine a rather unconventional archaeological subject, a carriage house, and use it as a lens to explore how landscapes shaped experiences, reflected values, and created meanings for members of the Pullman Community.

**Mayo, Carlos (Smithsonian Institution)**

[102] *Diseños y Patrones de Distribución de los Grabados Rupestres Coclesanos*

El Proyecto Arqueológico Coclé incluye el estudio del arte rupestre de la cuenca del río Coclé. Contamos con un registro temático y estilístico de los grabados, clasificados en base a los temas, variedades de un mismo tema y tecnología aplicada. Hemos utilizado estos datos, junto con una serie de análisis comparativos de la temática y estilística entre los grabados y los diseños presentes en la secuencia cerámica precolombina de la región, para establecer la cronología de los mismos, y su localización fisiográfica para determinar patrones.

**Mayo, Julia (Smithsonian Tropical Research Institute)**

[102] *Arqueología del Paisaje: Las Estructuras de Piedra y Minas Prehispánicas de la Cuenca Del Río Coclé, Panamá*

Presentamos en este simposio los resultados parciales del Proyecto Arqueológico Coclé, en el que hemos registrado mediante la prospección pedestre, geofísica y satelital, una serie de estructuras arquitectónicas sencillas, grabados rupestres y minas prehispánicas de la cuenca del Río Coclé, Panamá. El objetivo de nuestro trabajo es el descubrir los vínculos existentes entre estos yacimientos y establecer las áreas de captación de recursos naturales. La

interpretación los datos arqueológicos parten de los planteamientos de la Arqueología del Paisaje, una corriente que interpreta cada unidad espacial según su posible función y significado.

**Mazeau, Daniel (SUNY Buffalo & The New York State Museum) and Hixson, David (Tulane University)**

[33] *Regional Organization and Integration at Chunchucmil, Yucatán, Mexico*

Continued research in the regional hinterland of Chunchucmil, has provided new insight on the nature of rural occupation around this sprawling Northern Lowland Classic Period Maya site. This paper seeks to present some of the contrasting patterns observed in settlement layout, organization, and material culture among Chunchucmil's satellite sites. These patterns allow us to present some interpretations on the political, social, and economic organization and integration of Chunchucmil's hinterland.

**Mazeau, Daniel E. [177] see Hixson, David R.**

**McAllister, Martin (ARI)**

[46] Historical Context: The Antiquities Act and the Enactment of the *Archaeological Resources Protection Act*

The 1974 Ninth Circuit Court of Appeals ruling that the Antiquities Act was unconstitutionally vague caused the use of the general federal theft and injury to government property statutes in a major looting case that occurred in Arizona in 1977. When the judge in this case dismissed the property statute charges based on his interpretation of the purpose of Congress in enacting the Antiquities Act, archaeological sites in the vast Ninth Judicial Circuit were left unprotected from looting and vandalism. This led directly to the enactment of the Archaeological Resources Protection Act in 1979.

**McAnany, Patricia A. (Boston University)**

[207] *Ritual Works: Monumental Architecture and Generative Schemes of Power in the Lowland Maya Preclassic Period*

The onset of monumental architecture provides an unequivocal signal of societal change in the Maya lowlands, the colossal pyramids of the Preclassic period are distinct from those of the Classic period due to their modeled stucco facades and absence of royal tombs. A survey of the attributes of Preclassic pyramids suggests that the cosmological authentication of early rulers was of critical concern as was the construction of a novel architectural form that became an extremely durable inalienable possession (as per Weiner 1992). Arguably, inscribing such features on the landscape cemented social memory of hierarchy and diminished challenges to economic difference.

[54] see Morandi, Steven

**McAndrews, Timothy (University of Wisconsin, La Crosse), Rivera, Claudia and Jaimes, Carla**

[77] *Preliminary Results from the Multi-Component Site of Pirque Alto in Cochabamba, Bolivia*

Pirque Alto, located on a bluff overlooking the Tapacari River, has a rich assemblage of artifacts attributable to multiple cultural components. Research at Pirque Alto has thus far involved a systematic surface collection of 100 percent of the site allowing a detailed spatial analysis of components represented. Furthermore, preliminary testing revealed intact subsurface deposits allowing for a detailed exploration of prehispanic temporal dynamics. This poster presents findings of the first field season and outlines future research that should prove to expand our understanding of key issues including the establishment of early villages and the nature of Tiwanaku influence in Cochabamba.

**McBrearty, Sally (University of Connecticut)**

[59] *Chronology & Technology in the Middle Stone Age*

Sites that are included in the Middle Stone Age span a very long period of time. Various criteria are currently used for inclusion of lithic materials in the MSA; the presence of points or Levallois technology, for example, or the absence of handaxes and microliths. As chronologies become better understood, it is clear that these items enter and exit the archaeological record independently, and that each has its own behavioral ramifications and relevance to evolutionary events.

**McCafferty, Geoffrey (University of Calgary)**[230] *Domestic Practice at Postclassic Santa Isabel, Nicaragua*

Mesoamerican archaeology has developed important insights into pre-Columbian household and community patterning, but these research interests have only recently been applied to lower Central America. This paper reports on a community-oriented project from the coast of Lake Nicaragua, where eleven residential mounds have been sampled. Outstanding preservation has facilitated the recovery of a wide range of cultural remains, allowing detailed inferences of domestic practice in the Early Postclassic period.

[67] *Discussant*; [230] *see McCafferty, Sharisse***McCafferty, Sharisse (University of Calgary) and McCafferty, Geoffrey (University of Calgary)**[230] *Crafting the Body Beautiful: Social Identity in Postclassic Nicaragua*

Archaeological remains from Santa Isabel, Nicaragua, include numerous examples of personal adornment, while polychrome figurines depict an emic perspective on how ornamentation was used. Extensive evidence of textile production and jewelry manufacture indicate craft specialization at particular households within the community. This paper will explore expressions of social identity as negotiated at Early Postclassic Santa Isabel, and its relations with other neighboring regions.

**McCall, Grant (University of Iowa)**[135] *Comparative Perspectives on Lithics Refitting Studies: Limitations and New Directions Focusing on Refitting Rate*

This paper presents a comparative approach to lithics refitting studies. I examine a broad set of refitting studies with the aim of building frames of reference for refitting analysis results. I look at some of the methodological problems inherent in constructing these comparative frameworks. This paper primarily settles on refitting rate as a way of making comparisons across excavations of various sizes, densities of artifacts, and various other archaeological characteristics. While far from perfect, I suggest that systematic refitting considering all aspects of assemblages and presentation of refitting rate offer promising avenues in terms of making inferences from various refitting patterns.

**McCarthy, Celia (Port of Oakland) [88] *Discussant*****McCartney, Margaret (Queens University Belfast)**[128] *Enemies and Ancestors: Iron Age Head-hunting in Southern France*

The concept of a "Celtic cult of the head" as the prime instance of cultural and institutionalised head-hunting in Europe has its roots in the ancient Greek and Roman texts. Early this century, skulls were discovered, some with nails still embedded, at southern French sites which, in light of these ancient sources, were interpreted simply as trophies taken from fallen enemies, a savage and primitive practice which became an integral part of the pan-Celtic repertoire of warlike characteristics. Conversely study of the sites which produce these remains appears to suggest an elaborate set of practices expressing identity, territory and power.

**McClung de Tapia, Emily (IIA-UNAM, Mexico) and Ríos-Fuentes, Joram (Facultad de Ciencias, UNAM)**[158] *Huauhtzontli (Chenopodium berlandieri ssp. nuttalliae) in Prehispanic Mesoamerica*

Huauhtzontli, a cultivated chenopod distributed throughout the highlands of Central Mexico, is generally assumed to have been domesticated prior to the Spanish Conquest. This interpretation may be rooted in the association with the modern domesticated cited in English translations of some sixteenth century historical and ethnohistorical documents. Morphometric analysis of modern fruits of the central Mexican subspecies of *C. berlandieri*, and a revision of archaeological specimens spanning Middle Formative through Late Postclassic occupations, suggests that archaeological remains of *C. berlandieri* from this region were not domesticated. We explore implications for prehispanic plant use, culinary traditions and domestication of huauhtzontli.

**McClure, Sarah (University of Oregon)**[199] *Technology and Climate Change: The Introduction of Pottery to Valencia, Spain*

Cultural responses to global climate change often include technology as a defining characteristic.

Technologies are invoked to ameliorate the effects of environmental shifts or provide new arenas for human societies under changing conditions. Pottery was introduced to eastern Spain in the early Holocene along with subsistence farming. This paper explores the history and theoretical underpinnings of technologies as adaptations and looks specifically to the effects of the introduction of pottery at the transition to agriculture in eastern Spain.

**McConaughy, Mark A. (Bureau for Historic Preservation, Pennsylvania Historical and Museum Commission)**

[96] *Current Issues in Paleobotanical Research from Pennsylvania and Vicinity*

This paper will examine the current paleobotanical data base from Pennsylvania and the West Virginia panhandle. It will investigate important trends in utilization of various wild and domesticated plant foods during the Woodland and Late Prehistoric Period. Deficiencies in the paleobotanical data base will be noted and recommendations for future studies will be made.

**McCormick, Megan Merry (City University of New York/Hunter College)**

[58] *"You Look More Like Indiana Jones Than Lara Croft!" Confronting Gender Stereotypes and Sexualization in the Field and the Classroom*

Whether teaching "Women in Prehistory," excavating, or operationalizing gender theory into research, I encounter "sexualization stereotypes." Views of women past and present are still constrained by current constructions of femininity and masculinity. Deviations are met with surprise, skepticism, sexism, and stereotypes feminist archaeologists have spent decades critiquing. Examples range from students uttering the phrase titling this paper to amazement expressed by male archaeologists when a beautiful young woman is an outstanding dirt archaeologist to the inevitable question, "how do you find women in prehistory without osteological or iconographic data?" Alternative approaches used to confront and deconstruct these stereotypes are presented.

**McCulloch, Tom (Advisory Council on Historic Preservation) [24] *Discussant***

**McCullough, David (US Army Corps of Engineers, Jacksonville District) [176] *Discussant***

**McDavid, Carol [38] *see Jeppson, Patrice L.***

**McDonald, Pat [92] *see Francis, Peter***

**McElroy, Stephen [62] *see Hooe, Malcolm***

**McEwan, Colin (The British Museum)**

[205] *On Being and Becoming: Ruminations on the Genesis, Evolution and Maintenance of a Manteno Ceremonial Center*

Cerro Jaboncillo is a hill-top ceremonial complex with a corpus of stone sculpture (seats, stelae, anthropomorphic and zoomorphic) and ceramic figurines attributed to the Manteno (AD 800-1500) and earlier coastal Ecuadorian cultures. Using information extracted from Saville's "Antiquities of Manabi" together with his unpublished field notes I have been able to reconstruct the architectural contexts for this body of material and map the ritual topography of the site. This is complemented by an analysis of stelae iconography which offers insights into the genesis and evolution of this key locus for the maintenance of autochthonous religious traditions.

**McEwan, Colin [119] *see Lunniss, Richard***

**McFadden, Susanna (University of Pennsylvania)**

[233] *An Image Worth a Thousand Sherds: The "Lupa Romana" and Constantine's "New Rome"*

In the 4th century, Constantine forever altered the trajectory of Roman civilization by re-locating the Empire's capital. Yet while Rome had ceased to be a de facto center of politics in late antiquity, it remained a powerful symbolic heartland. Recognizing this, Constantine filled his new capital with spolia from the old. This paper tells the story of one such artifact, the "Lupa Romana," in order to reconstruct various dynastic and social agendas of the Constantinian era, and to illustrate the ways in which individual objects function as indices of change within an imperial system.

**McGill, Dru (Indiana University), Ebbitt, Alicia (Indiana University) and Kuns, Erin (Indiana University)**

[6] *Social Context Archaeology Methods: Research and Public Education by Members of the Center for Archaeology in the Public Interest (CAPI)*

The Center for Archaeology in the Public Interest (CAPI) consists of graduate students, faculty, and researchers at Indiana University, Bloomington, and Indiana University/Purdue University, Indianapolis (<http://www.indiana.edu/~capi/>). CAPI members promote and conduct ethical archaeological research relevant to contemporary cultural and political issues. They are committed to public education, collaborative research, and incorporating diverse perspectives into interpretations of the past. This poster explores the methods and theories utilized in social context archaeology and exhibits research projects associated with CAPI. We invite archaeologists with similar interests to visit the poster to expand the network of archaeologists interested in modern contexts of our discipline.

**McGrew, William [98]** *see Davidson, Iain*

**McGuire, Kelly [195]** *see Hildebrandt, William*

**McGuire, Randall (Binghamton University) [123]** *Discussant*; [151] *Discussant*

**McInnis, Heather (University of Oregon)**

[53] *Archaic Coastal Foraging Strategies in the Southern Andes: A Case Study from the Pampa Colorada, Camaná, Peru*

I assess the human ecological record of the Pampa Colorada region of southern Peru from the Terminal Pleistocene to the end of the Middle Holocene (12,000-4,000 14C years ago) to address two questions. First, what is the range of variation of Archaic coastal settlements and economies and what significant changes in these occurred? Second, what is the relationship between patterns of land and resource use and variability in regional climate and environmental conditions? Analyses of archaeological, paleoclimatological, and ethnographic data collected from the Pampa Colorada identify a Mid-Holocene hiatus in intensive seasonal fishing and foraging strategies.

**McKenzie, Dustin (Farwestern Anthropological )**

[89] *Beyond Intensification: Social Dynamics of a Fishing Culture*

Archaeological investigations of the California Islands have focused on the intensification of maritime economies. Discussions generally focus on causal factors that led to an increased reliance on marine foods, especially fish, over time. There have been arguments suggesting a relationship between fishing and the development of sedentism and social complexity. Moving beyond calories, the intensification of fishing efforts during the Holocene created new social mechanisms designed to deal with the harsh realities of maritime subsistence. This study uses archaeological, ethnohistoric, and cross-cultural data to show that social dimensions of fishing influenced the development of cultural complexity in the California Bight.

**McKeown, Ashley (University of Montana)**

[132] *Population History of the Kootenai, Northern Rockies: The Archaeological, Historical, Linguistic, and Biological Evidence*

It has long been recognized that the Kootenai of northwestern Montana, northeastern Idaho and southeastern British Columbia do not share the linguistic origins of the Native American tribes with which they have historically been associated. Using twelve anthropometric measurements collected in the early 1890's on behalf of British Association for the Advancement of Science and Franz Boas, the relationships among the Kootenai and other tribes from the Plateau, western Plains, Great Basin, Northwest Coast and Sub-arctic areas are examined. Combining evidence obtained from archaeology, ethnohistory, linguistics, and population genetics, the possible origins of the Kootenai are explored.

**McKillop, Heather (Louisiana State University), Somers, Bretton (Louisiana State University), Robinson, Mark (Essex University), Smith, C. Wayne (Texas A & M University) and Newsome, Lee (Penn State University)**

[164] *Underwater Maya: Ancient Wooden Structures Reveal Complex Infrastructure of Maya Economy*

How did people in pre-Industrial complex societies produce, store, and distribute bulk resources? Underwater survey and mapping in Punta Ycacos Lagoon in Paynes Creek National Park in

southern Belize has revealed an extensive infrastructure of salt production and distribution during the height of the Late Classic Maya civilization. Wooden structures of various sizes preserved in a peat bog below the sea floor contain dense quantities of ceramics used to boil brine over fires to make salt. Survey has revealed 67 sites so far, with wooden structures at 40 sites. We report on the 2005 field season of mapping wooden structures at 13 underwater sites, the continuing search for salt works, and the implications of the research for understanding the ancient Maya economy and built world.

**McKillop, Heather [139]** *see Somers, Bretton*

**McKnight, Matthew (Penn State University)**

[229] *The Copper "Cache" as an Analytical Unit: Testing Entrenched Assumptions*

Most studies of Early and Middle Woodland copper exchange focus on the individual artifact as the primary unit of analysis. By focusing instead on entire copper "caches," several long-accepted assumptions and misconceptions are challenged. Quantifying and mapping copper-bearing sites, copper objects, and artifact types shows that copper caches and many artifact forms are more widespread than commonly perceived. Through trace-element work one can assess the notion that raw copper was procured exclusively from the Great Lakes. Furthermore, the common perception of expansive "trade-networks" can be tested against simpler models of copper transport.

**McMahon, Catherine (The College of Wooster)**

[41] *The Celtic Invasion of Ireland: Myth or Fact?*

This study focuses on the transition period from the Late Bronze Age to the Early Iron Age in Ireland, which recently has come under some debate. The Late Bronze Age is defined as lasting from 1200-500 BC, and the Early Iron Age is 500 BC to the beginning of the Common Era. The transitional period under discussion, lasting from 600-300 BC, was originally known as the time when Ireland became Celtic. This study suggests that the Late Bronze Age of Ireland was marked by cultural continuity rather than invasion or large-scale replacement of key features.

**McNeil, Cameron (Graduate Center, CUNY)**

[210] *Pre-Columbian Landscape Transformation at Copan, Honduras*

A high-resolution sediment core extracted from the laguna Petapilla, 6 km from the heart of the ancient Acropolis, records information on nearly 3000 years of ecological transformations in the Copan valley. Analysis of the core reveals a record significantly different from what earlier ecologists have found; rather than a large degree of deforestation at the end of the Classic, the greatest periods of deforestation occur during the Early Preclassic and Early Classic. Data from the sediment core encourages a reexamination of the reasons for the political collapse of the Copan kingdom.

**McPherron, Shannon [76]** *see Jaubert, Jacques; [76]* *see Hublin, Jean-Jacques; [76]* *see Schurmans, Utsav*

**McReynolds, Theresa (University of North Carolina at Chapel Hill) and Herbert, Joseph (Cultural Resources Program, Fort Bragg)**

[43] *Woodland-Era Clay Procurement in the Carolinas: A Chemical and Mineralogical Study of Ceramics and Raw Clays*

Neutron activation (NAA), x-ray diffraction (XRD), and petrographic analyses of pottery, clay, and temper reveal regional distinctions in Woodland-era procurement strategies in the Carolina Piedmont, Sandhills, and Coastal Plain. NAA and petrography indicate that vessels found on Sandhills sites were not locally manufactured. NAA, XRD, and petrographic results further discriminate non-Sandhills source-area locations, while replication experiments demonstrate that Sandhills clays lack the plasticity essential for pottery making. These results indicate that pottery circulated over broad regions, suggesting high levels of residential mobility and implying that the acquisition of clay from distant sources was a critical feature of Woodland-era subsistence.

**McWaters-Bjorkman, Elizabeth (Archaeologist/GPR Technician) and Johnson, John (Santa Barbara Museum of Natural History)**

[36] *Ground Penetrating Radar Survey of the Arlington Springs Locality, Santa Rosa Island, California*

Since the discovery of the human remains known as "Arlington Springs Woman," by Phil Orr in



1959, there has been interest as to when people may have first settled on the California Channel Islands. The original radiocarbon dating of the remains found at Arlington Springs raised questions and controversy. Re-dating of the bone collagen and investigation of the site's chronostratigraphy places the age of the remains in excess of 13,000 cal. BP. Recently, a ground penetrating radar survey of the site was conducted with promising results. This study seeks to determine if the acquired GPR data can contribute to a reconstruction of the Late Pleistocene landscape in the vicinity of the Arlington Springs site. This information sheds light on the secondary deposition of the remains previously discovered. Also, subsurface anomalies were detected that hold the promise for further discoveries at Arlington Springs in pending fieldwork. This project not only holds the potential for new research in the studies of occupation during the Late Pleistocene along the American West Coast, but also the method employed.

**McWeeney, Lucinda (Yale University) and Hutcheson, Charlene Dixon (Leiden University)**  
[244] *Unraveling the Mystery: Fiber Impressed Ceramics from the Palmetto Grove Site, San Salvador, Bahamas*

Ceramics impressed with woven materials are widely represented geographically and culturally. Examples analyzed from the Palmetto Grove site, San Salvador, Bahamas found two palms and other botanicals were used to create a variety of woven patterns. A detailed examination of the only known example of spun fiber woven into a textile and impressed into clay found thus far in the Bahamas will be presented. Forensic analysis of the impression may yield the evidence needed to identify the type of material used in producing this textile.

**Meadow, Richard [28]** *Discussant*; **[215]** *Discussant*

**Means, Guy H. (Florida Geological Survey), Schwadron, Margo (SEAC National Park Service) and Russo, Mike (SEAC National Park Service)**

[248] *Reconsidering Everglades Prehistory: Recent Geological and Archeological Evidence for Holocene Variability and Early Human Settlement*

Previous researchers on working on Everglades tree islands often encountered a hardened layer (Calcrete?), but few have ever sampled below it or explained its origin. Recent investigations have determined this formation is widespread, and well-preserved organic soil and Archaic period archeological remains are present beneath it. Radiocarbon dating indicates formation sometime between 4000 and 2700 BP. Absence of artifacts in the calcrete layer suggests settlement of tree islands shifted, or followed changes in climate or environmental conditions. This paper explores the geological origin of the layer, and its archeological implications to prehistoric models of settlement in the Everglades.

**Me-Bar, Yoav [69]** *see Lewis, Brandon*; **[120]** *see Valdez, Jr., Fred*

**Medina Jaen, Miguel [29]** *see Tucker, Tim*

**Medrano, Sonia [9]** *see Neff, Hector*

**Meegan, Cathryn M. [107]** *see Adams, Karen R.*

**Meen, James K. [196]** *see Dandridge, Debra*

**Meindl, Richard (Kent State University), Prufer, Olaf (Kent State University), Mensforth, Robert (Cleveland State University) and Lovejoy, Owen (Kent State University)**

[132] *Cemetery Age Distributions and Modern Fertility: Estimating Mortality, Age Structure, and Annual Growth from the Paleodemographic Record*

A Late Woodland site and large cemetery (Libben, Ottawa County, Ohio) is analyzed to address two biases in paleodemography. Traditional methods of age estimation for children, adolescents, and young adults produce the bottom portion of the cemetery age pyramid. However, the ages of the oldest decedents are estimated using only the auricular surface of the ilium. Ethnographic surveys have revealed completed parity for women from natural fertility populations in several localities, particularly Neotropical South America. These fertility performances are used to complete the paleodemographic reconstruction of the people of Libben, revealing average age structure, mortality profile, and intrinsic growth.

**Meissner, Nathan [174]** *see South, Katherine*

**Meléndez González, Julisa**

[161] *Protecting Puerto Rico's Archaeological Heritage Through Legislation: Problems, Conflicts and Dualities*

The laws that protect the archaeological patrimony of Puerto Rico are the product of political and social changes within the archaeological community of Puerto Rico over the last fifty years. In the current system, there are two interested parties, the federal and the local government, both dedicated to the protection of cultural resources. Yet, serious conflicts exist between the local and federal laws that are disrupting the ability of contract archaeology to work in an efficient manner. In this paper presentation, I will explore the nature of these conflicts and offer a case study on the consequences of conflicting legislation.

**Meléndez Maiz, Marisol J. and Meléndez Ortiz, Sharon**

[176] *Rio Piedras, Archaeological Data Recovery Program of Historic Properties along the Construction Corridor of the Urban Train Project, San Juan, Puerto Rico*

A data recovery program was conducted for fourteen historic properties located along the alignment of the urban train project, which corresponded to the historic central road from San Juan through the town of Rio Piedras. The properties were grouped into five data recovery areas representing different segments of the town's life documented along the construction corridor. Each area provided distinct and unique information about the utilization of urban lots, architectural-construction characteristics, artifact assemblages and the transformation of the town's landscape during the 19th and 20th centuries. This paper will address the principal contributions of the archaeological investigation.

**Meléndez Maiz, Marisol J.** [161] *see Meléndez Ortiz, Sharon*

**Meléndez Ortiz, Sharon** [176] *see Meléndez Maiz, Marisol J.*

**Meléndez Ortiz, Sharon, Meléndez Maiz, Marisol J., Lizardi Pollock, Jorge and Tosteson García, Hugh C.**

[161] *Artifacts, Buildings and Documents: One for All and All for Archaeology*

Contract archaeology in Puerto Rico has not yet achieved a desirable integration between historic and archaeological research, particularly as concerns the identification and evaluation of historic archaeological resources. This paper aims to propose a research methodology for historic contexts in urban cores which is feasible within the limited parameters of contract archaeology. It will include a research protocol discussing the existing archival sources, as well as their potential for providing vital information for the identification of historic sites in urban cores. Concrete examples of research carried out in over a dozen urban centers throughout Puerto Rico will be presented in discussion.

**Mendizabal, Tomas (Instituto Nacional de Cultura (INAC)) and Brizuela, Alvaro**

[231] *Los Funerales de la Mama Grande: Funerary Ritual and Ideological Endurance at Panama Viejo*

Archaeological excavations at Panama Viejo, Panama, have located at least ten Precolumbian burials, primary and secondary, under the Plaza of the Colonial era town alone, revealing the varied funerary customs of the locals. They are immersed in a sandy midden filled with undecorated pottery fragments that dates between ca. AD 1000-1300. However, the most captivating feature of all is the burial of a woman accompanied with a funerary offering of nine human skulls and pottery vessels, whose disposition and dates tell the prolonged story for Panama Viejo and its inhabitants, beginning at least a thousand years before European Contact.

**Mendusic, Marko** [71] *see Moore, Andrew*

**Mengoni-Goñalons, Guillermo L. (Universidad de Buenos Aires)**

[144] *Camelids in Ancient Andean Societies: A Review of the Zooarchaeological Evidence*

South American camelids were of primary importance in the economy, social life and ritual of the Andes. This is illustrated in varied ways all throughout contextual information and material culture showing a very dynamic relationship between these animals and people. A key outcome of this interaction was the appearance of domesticated forms though the timing and place of this fundamental change is still under examination. I here review the current evidence and the array of direct and indirect zooarchaeological indicators that have been used to evaluate the character of this singular association.

**Mensforth, Robert [132]** *see Meindl, Richard*

**Mercader, Julio (University of Calgary) and Boesch, Christophe (Max Planck Institute)**

[17] *The Contribution of Chimpanzee Archaeology to the Understanding of the Oldowan*

This paper focuses on the excavation of chimpanzee sites in the West African rainforest of Tai, Cote d'Ivoire, over the last five years; and it discusses methodological and practical approaches to the interface between Primatology and Stone Age Archaeology.

**Meredith, Steven (University of Alabama/Panamerican Consultants, Inc.) and Jackson, Paul (Panamerican Consultants, Inc.)**

[242] *The Buck Creek Site and the Late Woodland Period in the Lower Appalachian Valley and Ridge*

The Buck Creek Site, 1Sh483, in central Alabama was discovered in the wake of earthmoving associated with the development of a subdivision. Artifacts were collected opportunistically from some features of this Late Woodland site before it was destroyed. This paper reports on results of the analysis of recovered pottery and radiocarbon samples. Our findings provide an opportunity to describe a Late Woodland culture of the lower Appalachian Valley and Ridge, for which there is a paucity of other information.

**Merino, Emilio (California State University, Los Angeles)**

[64] *An Ethnoarchaeological Perspective on the Utilization of Cave Space*

In his study of Santa Eulalia in 1932, Oliver LaFarge suggested that the cave, Yalan Na', was "the true center of the ceremonial" even though he was never permitted into the cave. Recent ethnohistorical and ethnographic investigations allow us to verify this and present a far more detailed picture of cave utilization. The cave is not a unitary feature but contains a number of spatially separated loci of ritual activity, each dedicated to a distinct function. The separation suggests ritual circuits within the cave. The data may provide a useful model for interpreting Pre-Columbian cave use.

**Merlini, Marco (EURO INNOVANET)**

[55] *Dating Tărtăria Tablets: New Archaeological Evidence*

A turning point in the origin of writing and its key role in the social complexity of ancient civilizations was the disputed discovery of the inscribed Tărtăria tablets in 1961 in Transylvania. I will introduce new data presenting C14 date of the bones associated with the tablets and reinvestigating the conditions of their discovery, that brings new arguments for the presence of an incipient script of magic-religious literacy in Neo-Eneolithic times: the "Danube script." This evidence does not harmonize with the view that European cultures were dependent upon diffusion from the Near East for all significant innovations.

**Merrell, Carolynne (Archaeographics), Dorn, Ronald (Arizona State University) and Jason, Lyon (Nez Perce National Historical Park)**

[196] *Innovative Petroglyph Dating Procedures at Buffalo Eddy*

Buffalo Eddy, a site within the Nez Perce National Historical Park system, hosts petroglyphs encapsulated under layers of manganiferous rock varnish. Some varnish is black in color, obscuring many of the images while other surfaces have a polished semitransparent reddish brown hue. The abundant use of chalk and the biochemical erosion by lithobionts such as fungi and lichens prevent the use of organic matter, oxalates, or other dating strategies requiring bulk samples. The application of other innovative testing procedures such as varnish microlaminations is advancing knowledge regarding the potential to order petroglyphs chronometrically.

**Merriman, Chris [105]** *see Grim, Todd; [217]* *see Porter, Jason*

**Merritt, Stephen (Rutgers University)**

[40] *Linking Butchery Behavior and Cut Mark Trace Fossils with Controlled Observations of Experimental Butchery Tasks*

Controlled butchery observations were conducted to explore the anatomical and spatial variability of cut mark traces introduced by distinct butchery actions (skinning, limb disarticulation, bulk defleshing, scrap defleshing), individual experience, and stone tool type. These butchery observations relate an anatomically detailed narrative of stone tool slices to the distribution of cut marks across the skeleton and describe cut mark spatial patterning, including

cut mark count, modal length and orientation. Preliminary results suggest distinct butchery tasks create cut marks at predictable skeletal landmarks, and that butcher experience and tool type affect the abundance and morphology of cut mark clusters.

**Mesia, Christian (Stanford University)**

[12] *Flushing Ceramics Down the Drain: New Evidence of Chronology and Use at Chavín de Huántar*

Recent work in Chavín de Huántar has greatly expanded the area sampled and the amount of material available for analysis. Excavations in the Wacheqsa sector, just north of the monumental core of Chavín, recorded a major midden area above an earlier canal. The materials recovered from the complex stratigraphy have yielded evidence of the remains of wattle and daub structures, plastered walls, and even molded friezes that were part of the monumental architecture of the ceremonial center. More significantly, the large ceramic sample, coming from well-stratified and datable deposits, suggests the need for refinement of the ceramic chronology of Chavín.

**Mesia M.A, Christian (Stanford University)**

[175] *Hacia una Arqueología Peruana hecha por Peruanistas: Algunas Reflexiones Sobre la Legislación Arqueológica en el Perú*

La legislación del COARPE ha sido interpretada como un obstáculo para el ejercicio profesional de investigadores no Peruanos. La creación de un gremio agrupador de arqueólogos Peruanistas ha detenido la práctica arqueológica de un grupo de investigadores, en lugar de reforzar la cooperación existente desde hace más de un siglo, cuestionándose la existencia de este gremio. En esta ponencia se discute la necesidad del COARPE como una colectividad de arqueólogos Peruanistas proponiéndose mecanismos para una completa integración de sus miembros respetando la legislación del Estado Peruano y el derecho al ejercicio profesional.

**Mesick, Cassandra (Brown University)**

[159] *Assessing Architecture: Theoretical and Practical Considerations beyond Form and Function*

Archaeologists must recognize that extant architecture serves more than the pragmatic function of providing shelter and protection for its inhabitants. This paper explores theories of architecture and suggests that ancient structures represent the sum of a series of deliberate choices, some influenced by practical considerations and others motivated by cultural practice and aesthetic preference. It further proposes that by exploring what guides and constrains these choices, archaeologists can begin to inquire into the meanings of different architectural forms and styles, including what they communicate, while also placing them within a broader historic and cultural framework.

**Meskill, Lynn (Stanford University)**

[151] *Making Myths of Terra Nullius*

South Africa was subject to colonial occupation and more recently Apartheid repression until the 1990s, leaving a legacy of decimated indigenous archaeological heritage. Narratives of archaeology played crucial, detrimental roles in the fabrication of subsequent history-making that remain inescapable today. Focusing on national parks, specifically tensions around remembering and forgetting their previous black inhabitants, and sacrificing cultural restitution for the "greater good" of conservation, I underscore the mobilization of state power irrespective of racial leadership. Set amidst the struggle over land claims and the deployment of archaeology, the claims of terra nullius have resurfaced in dangerous and familiar ways.

[111] *Discussant*

**Messenger, Lewis C. (Hamline University)**

[124] *Seeking the "First Person" in Antiquity: A Pedagogical Approach Toward Taking Ownership of the Preservation of Heritage Resources*

A distance or tension between archaeologists and descendent communities whereby archaeological science has often led toward treating ancient cultural materials as specimens to be objectively subjected to a whole host of analytical procedures. While this has contributed greatly to our knowledge, it has nonetheless depersonalized ancient individuals. Descendent communities have been rightly indignant about this, leading toward confrontation rather than cooperation. An approach having students utilize legitimate archaeological information from to write well-grounded fiction about specific times and places addresses indigenous people's concerns about depersonalization, while helping students develop a sense of co-ownership of the of "our" collective ancient heritage.

**Messenger, Phyllis (Hamline University)**[124] *Preserving Heritage Resources through Public Policy*

There is a pressing need to support communication and interaction among an international and interdisciplinary community of archaeologists, social scientists, educators, policy makers, and government officials—experts in the cultural sector—who teach, do research, and work in institutions and agencies responsible for heritage resource studies, management, and preservation. It is necessary to develop and strengthen networks for sharing knowledge and best practices, discussing emerging issues and concerns, and identifying strategies for solving problems. This paper discusses the results of the Public Policy work group from the November 2005 Preserving the World's Heritage Resources Workshop.

**Messer, A'ndrea (Penn State)**[198] *Small Sites, Old Surveys and What they Tell Us*

The Mesa Verde area is paved with small ancestral pueblo sites. Analysis of five surveys, bridging 50 years, can shed light on how people choose where to live. The surveys cover mesa top, talus slope, canyon bottom and alcove sites and indicate how small groups persist, use and relate to their immediate environment. While large sites come and go and influence the greater socio-political environment, small habitations remain. A comparison of small site location through time can shed light on where people chose to live and where they fit on the land and with the large sites.

**Metcalfe, Jessica Z. (University of Western Ontario), White, Christine D. (University of Western Ontario) and Longstaffe, Fred J. (University of Western Ontario)**[189] *Isotopic Anthropology at Chau Hiix, Belize: Comparisons with Lamanai*

Stable carbon- and nitrogen-isotope ratios of carbonate and collagen, and oxygen-isotope ratios of phosphate were measured in bones and teeth of Maya from the Early Classic to Historic periods at Chau Hiix, Belize. Although Chau Hiix individuals consumed more marine resources than Lamanai inhabitants, both sites show the same terrestrial-to-marine resource shift. This pattern reflects increased associations between inland and coastal sites during the Postclassic period. The individual buried in a Lamanai urn had a diet consistent with an origin from Lamanai. Oxygen-isotope ratios suggest that individuals in some special context burials were born elsewhere.

**Meyer, David [72] see Freeman, Andrea****Meyers, Maureen (University of Kentucky)**[213] *Ceramic Variability on the Mississippian Edge: A Reexamination of C.G. Holland's Southwestern Virginia Survey*

In 1963, C.G. Holland undertook a survey of southwestern Virginia that defined the regional ceramic typology. Despite additional studies of these ceramics, our understanding of the multiple groups that inhabited this region, their level of hierarchical organization, and their interactions with Mississippian groups remains limited. To better comprehend the nature of this relationship, a portion of the ceramics from Holland's survey was examined. Results suggest that some people in the region were heavily engaged in interactions with Mississippian groups, while others in close proximity were not. This paper will present the results of this analysis, and explore reasons for such differences.

**Meza, Abigail (Instituto de Investigaciones Antropológicas de la UNAM) and Ortega, Victor (Instituto de Investigaciones Antropológicas de la UNAM)**[56] *Esqueletos Humanos de Origen Africano en el Hospital Real de San José de los Naturales, Ciudad de México*

En este trabajo se presenta la información concerniente al hallazgo de los restos óseos de varios individuos que de acuerdo a la morfología del cráneo corresponden a sujetos de ascendencia negroide. Dichos restos fueron localizados dentro de una fosa común correspondiente a las primeras etapas de ocupación del Hospital Real de San José de los Naturales fundado durante la segunda mitad del siglo XVI en la capital de La Nueva España. También se desarrollará una discusión en torno a la prácticamente nula presencia de este sector de la población en contextos coloniales mexicanos.

**Mickelson, Andrew [109] see Gremillion, Kristen J.****Mickelson, Katherine R. [109] see Gremillion, Kristen J.**

**Mickle, Caryn N. (Hamilton College), Jones, George T. (Hamilton College) and Beck, Charlotte (Hamilton College)**

[138] *Knife or Point? A Microwear Analysis of Great Basin Paleoarchaic Stemmed Points*  
Large, stemmed projectile points are the dominant diagnostic of the Great Basin Paleoarchaic (11-8 14C ka) stone tool record. Archaeologists have wondered if these tools strictly served as lance or spear tips, or if they had a broader range of uses, particularly for knife-like functions. A sample of stemmed points and other Paleoarchaic bifaces from the central Great Basin is examined for the presence of microscopic use-wear traces. Use-wear features on archaeological specimens are compared with features developed on an experimentally-used tool set to constrain the range of functions of the artifacts.

**Middleton, William D. (Rochester Institute of Technology) and Burton, James (University of Wisconsin)**

[206] *T. Douglas Price, the Physical Sciences, and Archaeological Epistemology*  
Of Doug Price's many achievements, one of the most striking is the number of new analytical techniques he has pioneered. His approach differs from many of his colleagues: rather than searching for applications for newly developed technologies, he has sought technologies that can help to answer archaeologically significant questions. Examples include the use of trace elements to understand ancient diet, strontium isotopes to identify residential mobility, and chemical residues in sediments to understand domestic organization. In each of these cases, he has stressed solid empirical research that grounds the work within the framework of archaeological problem solving.

**Milanich, Jerald [242] see Kelly, Jennifer**

**Millard, Andrew [141] see Hughes, Susan S.**

**Miller, Alexandra (Arizona State University), Barton, Michael (Arizona State University), Garcia, Oretó (Universitat de València) and Bernabeu, Joan (Universitat de València)**

[199] *Surviving the Holocene Crisis: Human Ecological Responses to the Onset of the Current Interglacial*

The abrupt end of the last glacial cycle required equally dramatic global adjustments in human ecology. For hunter-gather populations these adjustments often included reorganization of landuse, including shifts in mobility strategies, settlement location, and resource use. We examine these behavioral changes using lithic attribute data as well as spatial distributions of artifacts and features. Using data from intensive survey and excavation, we trace human ecological response through the onset of the current interglacial in central Mediterranean Spain, comparatively far from the margins of the north-temperate ice sheets.

**Miller, Beth M. [79] see Kick, Maureen S.**

**Miller, Bryan (University of Pennsylvania)**

[223] *Ritual Practices and Practitioners: Evidence from a Nomadic Imperial Cemetery in Mongolia*

Recent excavations at a royal cemetery of the Xiongnu Empire (3rd century BC -1st century AD) in Mongolia carried out by the Khanuy Valley Collaborative Project demonstrate a conglomeration of ritual traditions throughout the empire converging at the burial grounds of the royal aristocracy. The tomb complexes have also yielded features related to extravagant ritual practices seen only at this site as well as evidence for the interment of shamans, along side echelons of the nomadic elite, to accompany the nomad rulers in the central tomb mounds.

**Miller, James J. (Heritage Planner) [248] Discussant**

**Miller, Joseph (University of Missouri, Columbia)**

[78] *Zooarchaeological Analysis of the Dirt Lodge Village South Dakota*

Presentation of the results and implications of the zooarchaeological analysis of the Dirt Lodge Village(39SP11), a Yanktonai Sioux village and meeting place in the James River Valley of South Dakota.

**Miller, Katherine (School of Human Evolution and Social Change, Arizona State University)**

[237] *The Bioarchaeology of Tomb 1, Group 11K-6 in Light of Skeletal Conservation Issues at Copan*

This paper discusses the conservation and study of human skeletal remains at Copan. It does so first by considering the analysis and conservation of the individual interred in Tomb 1 at Group 11K-6, excavated during the 2005 PAPAC field season. Discussion will include results of analyses of age, sex, and pathological conditions. Second, it addresses general issues highlighted by the recent cataloguing of all of Copan's human remains as part of the larger aims of PAPAC.

**Miller, Kevin A. [209]** *see Houk, Brett A.*

**Miller, Sarah (Kentucky Archaeological Survey)**

[251] *Material Remains from the Old Frankfort Cemetery, Frankfort, Kentucky*

Based on an analysis of the personal artifacts and coffin hardware recovered from the Old Frankfort Cemetery, most internments dated from 1815 to 1860. The coffins or caskets were locally made and are consistent with what one would expect for poor and lower middle class burials. Inter-site comparison of the personal materials failed to find any difference based on age, gender or ethnic distinctions. This suggests that poor European descendants had similar access to resources as freed African-Americans in Frankfort during this time.

**Miller, Shane [66]** *see Anderson, David*

**Miller, Virginia (University of Illinois, Chicago)**

[221] *Water, Fire, and Blood at Chichen Itza and Tula*

Although sacrificial rites are graphically illustrated at Chichen Itza, less attention has been paid to ceremonies involving fire and water even though the site's texts frequently mention burning events and the Sacred Cenote was the locus of intense ritual activity. Furthermore, Chichen's imagery sometimes focuses on fire and water as well. Water and fire rites are both deeply rooted in Mesoamerica, the latter particularly well-documented in central highland Mexico in all periods. Architectural features and offerings at both Chichen and Tula clearly demonstrate that the two centers shared similar beliefs and ritual behavior. In addition, Chichen's art shows that fire and water rites were closely entwined with warfare and human sacrifice.

**Milligan, Derek [62]** *see Burson, Elizabeth*

**Mills, Barbara (University of Arizona)**

[91] *How the Pueblos Became Global: Colonial Appropriations, Resistance, and Diversity in the North American Southwest*

Theories of colonialism and modernity often present divergent ways of understanding how indigenous populations became global, yet there are several points of intersection. These points include: (1) the heterogeneity present within indigenous groups that led to varied experiences of colonialism, (2) the diversity in colonial programs, (3) how the colonized and the colonizers appropriated goods and labor from each other, and (4) the variable practices of indigenous resistance. These intersections are illustrated through a discussion of the Pueblos of the North American Southwest, from the late "precontact" period (ca. AD 1400) to the present.

[214] *Discussant*

**Millsbaugh, Sara [87]** *see Luzzadder-Beach, Sheryl*

**Milner, George (Penn State)**

[82] *Heterogeneity within Mortality Samples: Trauma in Medieval to Early Modern Danish Skeletons*

Archaeological skeletons provide considerable information on health in the past, although much of what is known is derived from aggregated data (skeletons grouped into broad categories). Examinations of heterogeneity within populations, however, provide closer approximations of past conditions and are consistent with current archaeological emphases on variation within communities. Here I enlarge upon the so-called Osteological Paradox that, among other issues, draws a distinction between mortality and living samples. In particular, heterogeneity within populations is detected by identifying "at risk" groups in mortality samples using accidental and purposeful trauma in medieval to early modern Danish skeletons.

**Minchak, Scott (Texas A&M University and LaPorta and Associates, L.L.C.)**

[74] *Subsistence Activities at Quarries and Quarry-Related Workshops: Testing the Holmes and Bryan Alternatives with Blades from the Gault Site*

Prehistoric quarries in America are poorly understood and thus problematical when making inferences about past behavior. William Henry Holmes hypothesized that quarries were exclusive producers of blanks that were further refined in villages away from the quarry. Kirk Bryan postulated that Holmes' "blanks" were usable tools and that quarries also served as factories for working other materials. A microwear analysis of Clovis blades from the 2000 Texas A&M University excavations at Gault serves as a test for the alternative hypotheses, indicating that determining non-extraction activities at quarries and quarry-related workshops is also more problematical than thought.

[30] see LaPorta, Philip; [30] see Brewer, Margaret; [73] Discussant; [74] see Conrow, Michael

**Mink, Phil [251]** see Simpson, Duane

**Miracle, Preston (University of Cambridge) and Boric, Dusan (University of Cambridge)**

[111] *Bodily Beliefs at the Dawn of Agriculture in Western Asia*

We examine the rich record of human and animal bodies and body parts (contextual case studies and an overview of the burial records) to explore how bodily beliefs changed from the Natufian through Pottery Neolithic in the Levant, Western Asia. We examine the composition and frequency of "mixed" burials (human-animal, multiple humans) and the partibility of bodies. These analyses are used to elucidate the perceived boundaries of the human body and the manner and contexts in which these boundaries were negotiated or violated, and variability in time and space in cultural patterns in the presentation and treatment of human bodies.

**Mirambell, Lorena (Instituto Nacional de Antropología e Historia, México)**

[144] *Excavaciones en el Sitio Pleistocénico Rancho La Amapola, Cedral, San Luis Potosí, México*

Desde 1960 la arqueología mexicana realiza investigaciones interdisciplinarias en laboratorios especializados. Entre los estudios realizados está el del sitio "La Amapola", Cedral, un viejo manantial, donde se conformó un yacimiento paleontológico pleistocénico que fue excavado y, en la primera temporada, se localizó un hogar fechado en  $31,859 \pm 1,600$  aP (I-10483). Las representaciones faunísticas, florísticas, los estudios estratigráficos, geológicos y geomorfológicos van de alrededor de 40,000 aP a la actualidad. Se localizaron burdos artefactos líticos y cinco hogares más, cuyos fechamientos van hacia 30,000 aP.

**Miroff, Laurie (Binghamton University) and Wilson, Jeremy (Binghamton University)**

[35] *What's the Point?: Reconsidering Culture-Historic Taxa in the Late Archaic*

Rigid adherence to culture histories has masked important regional variability and limited questions regarding cultural diversity and social dynamics during the Late Archaic in the Northeast. Considering multiple regional/ subregional histories allows for innovative interpretations of complex hunter-gatherers. Analysis of projectile point variability at the Castle Gardens site serves as one case study challenging traditional culture-historic frameworks that describe the relationship between the Vestal and Lamoka Phases in the Allegheny Plateau region of the Northern Appalachians. Statistical modeling of contemporaneous Vestal and Lamoka points examines the possibility of stylistic differences related to intra-and inter-group identity formation, interaction, representation, and reproduction.

**Miroff, Laurie [91]** see Cobb, Charles

**Misarti, Nicole (Institute of Marine Science-UAF), Finney, Bruce (Institute of Marine Science-UAF) and Maschner, Herbert (Idaho State University)**

[204] *Reconstructing Midden Composition through Chemical Analysis of Soils in the Eastern Aleutians*

In order to characterize the chemical signatures of middens with differing faunal remains this study determined chemical compositions of soils collected from middens from two Aleutian islands, Sanak and Unalaska Islands, Alaska. Concentrations of Al, Ba, Ca, Fe, K, Mg, Mn, P, Sr, Ti, and Zn from 200 samples were analyzed using an inductively coupled plasma-mass spectrometer (ICP-MS). Results show this type of research could be utilized to determine the presence and possibly faunal composition of middens at older sites in the Aleutians that no longer contain organic remains.



**Mistak, Sarah [6]** *see* Peacock, Evan

**Mitasova, Helena [220]** *see* Barton, Michael

**Mitchell, Mark (University of Colorado)**

[187] *Communities of Practice in Seventeenth-Century Mandan Craft Production*

Mandan craft production was a specialized activity in the early nineteenth century. Manufacturing techniques were proprietary and the right to practice particular trades was restricted. Novice arrow makers, potters, or boat builders acquired their technical knowledge by entering into socially-sanctioned apprenticeships with established producers. Less is known about how craft production was organized in the early Contact period. Data on the techniques of pottery manufacture are used to determine whether the nineteenth-century practice of specialized production was in place during the seventeenth century. Changes in the organization of craft production during the Contact period may signal new economic patterns.

**Mitrovic, Slobodan (Graduate Center, CUNY)**

[111] *Fresh Scars on the Body of Archaeology: An Archaeologist's Encounter with Forensic Anthropology*

Forensic experts including a team of archaeologists examined bodies from the grim atrocity site of Batajnica near Belgrade. It was suspected that the hundreds of bodies from several graves originated from different events and from different places in Kosovo and Metohija. Sorting through human debris archaeologists looked for clues to how people died and to their identities, and also tried to detach the daily life from the clothed bodies in the ground that went together with it. This paper discusses the complex relationship between the sensual and bodily imprints, and the life on site during the process of exhumation.

**Mobley-Tanaka, Jeannette (Front Range Community College)**

[209] *Archaic Settlement Patterns along the Mountain-Plains Boundary: Evidence from the Ken Caryl Ranch, Jefferson County, Colorado*

Numerous sites cluster in the Hogback Valley on the eastern edge of the Rocky Mountain Foothills in Colorado. The Colorado Archaeology Society has explored a number of these sites on the Ken Caryl Ranch over the last thirty years. Using the evidence they have collected at the Swallow Site and other nearby sites, archaic settlement and land use patterns will be explored. Land use on the mountain-plains boundary will be compared to recent advances in the understanding of the Archaic in both the mountains and the western plains.

**Molína, Lluís [199]** *see* García, Oreto

**Molina-Garza, Roberto [216]** *see* Fisher, Christopher

**Monahan, Belinda (Northwestern University) and Grossman, Kathryn (University of Chicago)**

[233] *Feeding the Fort: Zooarchaeological Investigations at the Hellenistic Site of Hacinebi Tepe*

Empires maintain themselves through processes of taxation and redistribution of commodities; both locally and throughout the empire. This paper will look at the faunal remains from the site of Hacinebi in southeastern Turkey, examining, not only the pastoral practices of the occupants of the site, but also the relationship of these pastoral practices to the larger Achaemenid and Hellenistic imperial exchange system, both locally and on a regional level. This study will shed light on the ways in which small settlements, largely ignored in the historical record, were incorporated into the wider economic organization of empires.

**Moncel, Marie-Hélène (CNRS-MNHN, Paris), Chacon Navarro, Marie Gema (Universitat Tarragona) and Coudeneau, Anne (MMSH Aix en Provence)**

[162] *Macroscopic Traces and Technological Behaviour of the Middle Palaeolithic Lithic Points in Payre (SE-France): Projectiles or Hand Tools?*

The site of Payre has yielded several human occupations dated to the OIS 7 and 5 and associated to human remains. Half of the 15% of retouched flint products are retouched points. A large part of these tools and numerous unretouched triangular flakes have macroscopic traces: crushing marks on the cutting edges, fractures and micro-removals on the tips. Such traces, by their location and diversity suggest functional areas on the same pieces and a great variability of use. New perspectives are opened again on the debate: is there evidence of lithic projectile points in the European Mousterian?

**Mondragon, Lourdes (Galería de Historia o Museo del Caracol, Instituto Nacional de Antropología e Historia (INAH))**

[56] *La Actividad Comercial del Siglo XVI y la Población de Origen Africano, en México*  
La población negra en México durante la colonia ha sido poco estudiada, a pesar de que este grupo fuera uno de los principales actores de la época. Esta investigación amplía los conocimientos sobre la historia Mexicana, durante el siglo XVI, teniendo como principales actores a la población negra en la ciudad de México. Se discute su introducción, características de venta y los precios que tuvieron durante dicho periodo, con base a la edad y lugar de procedencia. También se trata lo relativo a la regulación comercial, impuestos, derechos y contrabando.

**Mongelluzzo, Ryan (University of California - Riverside) and Valle, Judith (Universidad de San Carlos)**

[190] *The Western Precinct of the Holmul Palace: A Snapshot of Changing Elite Activity*  
In 2005, work continued in the palace at Holmul. Efforts were concentrated on the western, or rear, area of the palace. Using an analysis of architecture and the use of space, coupled with artifact analyses, it becomes evident that substantial changes in behavior occurred from the Late to Terminal Classic periods. By looking at the way architecture influenced paths of movement and cued behavior, the western precinct is understood in its context of the palace as a whole. Terminal Classic deposits subsequently indicate that during this period activities conflicted with the architectural morphology.

**Monroe, Cara (University of California Santa Barbara), Kemp, Brian M. (University of California Davis) and Smith, David Glenn (University of California Davis)**

[141] *Mitochondrial DNA Evidence Supports Historic Documentation of Yavapai-Apache Interaction*

Historic evidence, dating back to the 16th century, suggests that the Western Apache and Eastern Yavapai had established strong cultural ties through reciprocal trade, military alliances, and intermarriage, despite speaking entirely unrelated languages. While previous mitochondrial DNA (mtDNA) studies suggested that gene flow between Athabaskan and Yuman speaking groups of the Southwest was unidirectional, with women marrying into the former, we conducted a more extensive study of Yavapai mtDNA variation to address this claim. We found that a substantial portion of Yavapai maternal lineages are ultimately of Athabaskan origin, suggesting that Yavapai-Apache interaction was more dynamic than previously detected.

**Monroe, Cara [141] see Kemp, Brian**

**Monroe, J. Cameron (Washington University in St. Louis)**

[169] *"The kingdom is like a pot with many holes:" Corporate Power and Political Order in Pre-Colonial Dahomey*

Current perspectives on the development of complex societies increasingly acknowledge that emerging states may draw from a variety of power strategies in establishing political order. The Kingdom of Dahomey in Atlantic era West Africa provides a rich context in which to explore this issue. Historical and archaeological evidence from Dahomean royal palace sites is rallied to argue that elite power strategies in Dahomey began to shift from "individualistic" to "corporate" strategies over the course of the seventeenth through nineteenth centuries. This resulted from changing inter-elite dynamics caused by the shifting economic opportunities presented by the Atlantic commerce in this period.

**Montero, Arturo [29] see Tucker, Tim**

**Montero, Laurene [198] see Davis, Erin**

**Monterroso, Mirza (Universidad San Carlos de Guatemala) and Woodfill, Brent**

[29] *Evidence of Local Ceramic Production at and Control of the Candelaria Caves, Alta Verapaz, Guatemala*

Research since 2001 in the Candelaria Caves and two associated settlements has revealed evidence of long-distance pilgrimage in the Early Classic and more local Late Classic use. In the Early Classic, the vast majority of ceramics used in rituals seems to be imitation of Central Petén ceramics manufactured by one of the two local settlements. In the Late Classic, rituals take place in a more concentrated area surrounding the second small community, and locally-produced

ceramics in this period are Alta Verapaz in style. These changes correlate to larger patterns of control of the nearby trade route.

**Montoya, A. [162]** *see Blackwell, Bonnie*

**Montoya, Eduardo [219]** *see Delgado, Mercedes*

**Moon, Robert (SRARP-SCIAA) and Forehand, Tammy (SRARP-SCIAA)**

[5] *New Understandings of an Eighteenth Century Trading Post near Jackson, South Carolina*  
As part of a three-year study funded by the Strategic Environmental Research and Development Program various remote sensing techniques were used on four sites to explore the benefits of integrating multiple remote sensing techniques to detect subsurface archaeological features. One of those sites was the Galphin Site, an 18th Century trading post on the Savannah River in Aiken County, South Carolina. While the results of the overall remote sensing project are presented in other reports, this poster will look specifically at the Galphin Site and how the remote sensing and subsequent excavations are leading to a new and better understanding of this frontier outpost.

**Moore, Andrew (RIT), Mendusic, Marko (Ministry of Culture, Croatia), Colledge, Susan (Institute of Archaeology, University College, London), Legge, Anthony (Birkbeck College, London) and Smith, Jennifer (Washington University in St. Louis)**

[71] *Early Farming in Dalmatia (Croatia): Preliminary Results of Research at the Neolithic Site of Danilo*

The inception of farming in Southern Europe continues to be a topic of controversy. Research at Danilo on the initial stages of farming and village life is designed to elucidate this problem. Excavations at Danilo have yielded significant samples of charred plant remains and animal bones that provide primary data for the economy of the site. Preliminary results indicate that the inhabitants depended on farming. Artifacts and structures suggest considerably more spatial variation at the site than expected. AMS dating of Danilo indicates that present understanding of the Dalmatian Neolithic cultural sequence and chronology may need to be revised.

**Moore, Andrew [71]** *see Smith, Jennifer*

**Moore, Gordon [118]** *see Wichlacz, Caitlin*

**Moore, Jerry (CSUDH)**

[113] *Modes of Religious Authority and Forms of Ritual Architecture: Ethnographic Comparisons, Archaeological Implications*

A comparative study of ethnographic cases from South America suggest a correlation between modes of religious authority and forms of ritual architecture. Drawing on the work of Lawrence Sullivan, three modes of religious authority are defined: ecstatic shamanism, mediums, and canonists. Ritual architecture associated with these different modes of religious authority vary in terms of key variables regarding the permanence, ubiquity, and visibility. A comparison of ethnographic cases indicates that ecstatic shamanism is associated with ritual architecture which is relatively impermanent, widely distributed among settlements, and reflects relatively intimate and visible interactions. In contrast, religious authority based control of a canon of sacred knowledge is associated with ritual architecture that is relatively permanent, distributed among relatively few settlements, and may encompass both intimate and distant interactions. The implications of this correlation are relevant for understanding the emergence of ritual architecture in early Andean societies.

**Moore, Katherine M. (University of Pennsylvania), Bruno, Maria (Washington University), Killacky, Kathryn (UC Berkeley), Capriles, Jose (Washington University) and Hastorf, Christine (UC Berkeley)**

[178] *Integrated Contextual Approaches to Understanding Past Activities Using Plant and Animal Remains from Formative Sites in the Titicaca Basin, Bolivia*

We demonstrate an explicit approach to studying ritual and domestic contexts using plant and animal remains from flotation samples. Field records of deposit integrity, burning, and artifacts from Formative sites on the Taraco Peninsula in Bolivia are matched with botanical and zooarchaeological remains. Ubiquity, volume density, and ranked scales of the intensity of burning are compared. Assemblage characteristics are summarized by context, allowing us to describe past activity and depositional history in terms of the intensity, context of burning, and the likeliness of food preparation in domestic and ritual spaces.

**Moore, Mark (University of New England)**[98] *Lithic Design Space and Cognition*

Stone flaking is achieved through integral sets of geometrical identifications and motor actions collectively referred to as the "flake unit." Since motor actions share a neural substrate with language, evolutionary changes in the complexity of motor actions can track changes in cognitive complexity. Motor action complexity is tracked in two ways: by analyzing internal flake unit changes and by exploring flake unit combinations. In early evolutionary history—e.g., Oldowan techniques, handaxe manufacture, the Levallois method—hominins elaborated the internal structure of flake units but combined them simply. Complex combinations of flake units appear in the later Middle Pleistocene.

**Moore, Summer (Alpine Archaeological Consultants, Inc.)**[250] *Growing Up American: An Archaeology of Children's Toys from the Southeastern Colorado Coal Camps*

Archaeologists studying children's toys have consistently viewed them as a means by which parents instill certain social values into their children. In the company-owned coal camps of southeastern Colorado, however, the companies who ran the camps took on many parenting duties, including education, medical care, and even giving Christmas gifts to the children of their workers. Using items recovered from excavated sites, this paper examines the role that toys may have played in the company's program of Americanization of these recent immigrants especially regarding gender roles and American ideals of beauty and gentility.

Mora, Rafael [17] *see de la Torre, Ignacio***Moraes, Claide (Universidade de São Paulo - Brazil)**[202] *Archaeological Survey at the Lago do Limão Area - Central Amazon - Brazil*

This paper presents data on pre-Columbian settlement patterns at the Lago do Limão area, an interfluvial located at the confluence of the Negro and Amazon Rivers. Previous research in the area has identified, mapped and excavated an archaeological site associated to the Manacapuru phase dated between AD 700 and 800. Recent fieldwork has identified 14 other sites in the area, showing a peak in occupation before AD 1000. The data corroborates the hypothesis that the peak of occupation in the Central Amazon happened before the onset of European colonization, followed by a decline that started on the 12th century AD.

[202] *see Bartone, Robert***Moragne, Steven (SUNY Albany)**[35] *Phytolith Research at the Pethick Site: Schoharie, New York*

The Pethick Site in Schoharie, New York is a multi-component site with significant early and late woodland occupations. Phytolith samples were extracted from the wall profiles of excavation units in order to better understand the relationship between the site's occupiers and the environment that surrounded them. Phytolith research reveals interesting patterns of resource procurement and subsistence through time at the site.

**Morales Jr., Reinaldo (University of Central Arkansas)**[196] *Archaic Art, Living Art, and the Interpretive Gap: A View from Brazil*

Ethnography is used, abused, and even eschewed in rock art research. Indigenous knowledge of recent rock art traditions can significantly inform interpretation. Conversely, when a dozen or more millennia separate the rock art from the living traditions, ethnographic analogy is frail or useless. Brazil offers a unique situation. In many cases, the arts of the Brazilian Indians have only been impacted by European contact for less than a century, while the rock art of Brazil includes probably the oldest art in the Americas. This paper illustrates how persistent living traditions can inform the interpretation of Archaic Brazilian rock art.

[126] *see Quesenberry, Melisa A.***Morales-Santos, Lorenzo (Centro de Estudios y Servicios Ambientales de Villa Clara)**[112] *Nuevas Industrias de Piedra Tallada para la Tradición Paleolítica de Cuba*

Hasta los años 90s solo se conocían dos industrias líticas relacionadas al Paleoindio cubano, Seboruco y Playitas. Tres nuevas tradiciones han sido identificadas en la provincia de Villa Clara. La primera, la industria Charcón, se caracteriza por hachas de mano. La segunda industria llamada Tecas se caracteriza por el uso de guijarros y cantos rodados con elaboración secundaria. La tercera, Jibá, tiene tendencia a la producción de láminas esbeltas, de mayor

complejidad, similar a la industria Levallois del Viejo Mundo. Interpreto esta variabilidad como el resultado de la adaptación de las tecnologías continentales al contexto insular.

**Moran, Kimberlee (Forensic Outreach)**

[18] *Unintentional Artefacts: Fingerprinting Material Culture*

A recent development in academia is the field of forensic archaeology. Many modern forensic techniques have found applications within archaeological contexts. Fingerprint technology is one such resource but it remains largely untapped by the academic community. A technology that has existed for nearly a hundred years may provide considerable information concerning individuals, socio-economic roles, and relationships between communities. As an unintentional artifact within material culture, fingerprints contain intrinsic data and act as a means of identification. Whilst their role as a biometric "signature" has yet to be utilized, current research demonstrates their value to our understanding of material culture.

**Morandi, Steven (Boston University) and McAnany, Patricia**

[54] *Maya Identity and Tradition Amid the Incursion of Spanish Colonialism: Insights from the Sibun Valley of Belize*

The sixteenth-century Spanish incursion triggered changes in Maya societies. Fundamental concepts like time and space were renegotiated in the face of political, economic, and religious tensions. Although concentrated in northern Yucatán, the catastrophic impact of Spanish domination rippled through the entire Lowlands. Responses to the burden of Spanish demands were formulated in terms of local knowledge and customs. Insights gleaned from the excavation of an early colonial house and midden in the Sibun Valley of Belize provide a basis for discussing the role of Maya tradition and memory in reformulating social identity during the first century of contact.

**Morehart, Christopher (Northwestern University)**

[158] *Landscapes of Knowledge, Power, and Practice: Social Permutations in Plant Practices and the Late Classic Maya*

Ethnographic and historic sources have been a strong source of secondary information into ancient Maya plant practices. Yet extrapolations from such data can contribute to perspectives that are timeless, at best, and stereotypical or romanticized, at worse. This criticism is not solely theoretical but has substantive import; such reconstructions homogenize potential distinctions in forms of and access to ecological knowledge. Paleoethnobotanical data from western Belize suggest differences in how social groups interacted with the plant world. Such variability derived from the position of social actors, as well as their everyday and ritual practices, within multi-scalar political economic milieus.

**Morell-Hart, Shanti (University of California, Berkeley)**

[158] *Seeding the Site: Paleoethnobotanical Approaches in Mesoamerica*

Paleoethnobotanical approaches are beginning to realize their potential in studies of past Mesoamerican societies. As specific plant uses manifest dynamic and historically-contextualized relationships between humans and plants, paleoethnobotanical data have the ability to tell us a great deal about past individuals, groups, and societies through explorations of the initiation, integration, maintenance, and abandonment of practices surrounding plants. This paper addresses paleoethnobotanical examinations of the paradigmatic and syntagmatic relations of plant use-- through which many activities previously "invisible" to the gaze of archaeology have been elucidated-- and discusses the promising future role of paleoethnobotany in ancient Mesoamerican studies.

**Moreno-Cortes, Jose E. (University of South Florida) and Davis-Salazar, Karla L. (University of South Florida)**

[234] *Materializing Social Relations: Patterns of Acquisition and Consumption in the Palmarejo Archaeological Zone*

The recent discovery of a Classic Ulua marble vase in a burial associated with a residential building in the Palmarejo archaeological zone of Honduras encourages questions about patterns of acquisition and consumption among agrarian households. This paper considers the various ways by which prehispanic households provisioned themselves with socially valued goods and, in the process, materialized social relations between members of the Palmarejo community. Based on the style and substance of the vase, along with its context as mortuary furniture, we infer that gift exchange may have provided a mechanism to embed social relations in ritual contexts.

**Morenon, E Pierre [96]** *see Largy, Tonya B.*

**Morett Alatorre, Luis [80]** *see Rodríguez López, Isabel*

**Morgan, Christopher (University of California, Davis)**

[36] *Determining Hunter-Gatherer Foraging Radii and Seasonal Residence Patterns Through GIS Analysis of Acorn Storage and Processing Features*

GIS analysis of acorn cache foundations in the southern Sierra Nevada identifies a dispersed pattern of expedient acorn storage delineating a 3.6 km foraging radius around central place settlement clusters. Geospatial analysis of bedrock milling feature density and distribution indicates a bimodal seasonal settlement pattern consisting of centralized winter population aggregation below winter snowline and randomized summer population dispersal above winter snowline. Identified foraging radii and seasonal mobility patterns conform to worldwide hunter-gatherer ethnographic descriptions of foraging behavior and seasonal residential mobility, indicating the efficacy of using stationary features to reconstruct prehistoric foraging and residence patterns.

**Morgan, David (NCPTT)**

[97] *Inadvertent Discovery of Human Remains: A Case Study from the Louisiana Army National Guard's Jackson Barracks, New Orleans*

In the spring of 2004 two human burials were inadvertently discovered at a Louisiana Army National Guard facility in New Orleans. Northwestern State University of Louisiana was retained to excavate the remains following protocols established with federally-recognized tribes and the Louisiana SHPO. Based on the associated bead assemblage, we believe one burial is that of a Seminole woman who perished in the mid-1800s, probably while incarcerated during the Second Seminole War. This interment provides a rare glimpse of an individual's removal experience and, more generally, how the Seminole may have responded to severe, forced cultural disruption and change.

**Morgan, Molly [87]** *see Padilla, Antonio E.*

**Moriarty, Matthew (Tulane University), Lawton, Corey (Tulane University) and Spensley, Ellen (Boston University)**

[25] *Polity and Economy at an Ancient Maya Inland Port: Results from the 2003-2005 Seasons at Trinidad de Nosotros*

Recent investigations at Trinidad de Nosotros, an ancient Maya site on the north shore of Guatemala's Lake Petén Itzá, focused on assessing the site's role in long-distance trade networks. Data from these investigations demonstrate that Trinidad functioned as a port for much of its long history of occupation. Key questions, however, center on Trinidad's role during the Late Classic period when the nearby site of Motul de San José was a major political capital. Data from recent research at Trinidad and Motul are compared to provide an early assessment of polity and economy at an ancient Maya inland port.

**Moriarty, Matthew [25]** *see Spensley, Ellen; [80]* *see Bair, Daniel*

**Morin, Eugene (McGill University)**

[135] *Assessing Identification Biases at Saint-Césaire Using Long Bone Refits*

Recently, refitting has been presented as a critical tool for determining identification biases in shaft-dominated assemblages. For instance, it has been shown that in some sites, pre-refit MNE counts differ markedly in terms of body part composition from post-refit MNE counts. This paper investigates how refits can be used to determine identification biases in assemblages dominated by shaft fragments. The method presented here differs from previous methods by focusing on percentages of refits by category of element. Results are presented using data from Saint-Césaire, a site documenting the Middle to Upper Paleolithic transition in France.

**Morison, Melissa [232]** *see Erdman, Katherine*

**Morris, Craig (American Museum of Natural History)**

[149] *The Urban Schedule in an Inka Administrative City*

Both the written and archaeological evidence suggests that many Inka cities varied considerably through the annual ceremonial and labor cycles. The paper will examine the written evidence for

the Inka ceremonial and agricultural calendars. It will then compare that evidence with distribution patterns in architecture, artifacts and open spaces at Huanuco Pampa in an effort to approach some understanding of temporal patterns in the city's life. The aim is to propose a partial model for who was present, when they were present, and what were their primary activities.

**Morris, Ellen (Columbia University)**

[223] *Power and Sacrifice in First Dynasty Egypt*

Large-scale retainer sacrifice at the death of a ruler is most often observed in conjunction with state formation, as heirs seek—by the conspicuous consumption of human lives—to impress the divinity of kingship upon their newly inherited subjects. In Egypt's First Dynasty, many of the largest tombs in the country were ringed with retainer sacrifices, yet these Saqqara mastabas are almost uniformly attributed to "elites." Using cross-cultural evidence for retainer sacrifice, this paper seeks to contest the notion that within a divine kingship elites would have possessed enough ideological capital to finance such an emotionally and economically wrenching mortuary rite.

**Morris, Margaret (University of Wyoming) and Salisbury, Roderick (SUNY Buffalo)**

[153] *Intra-site Spatial Analyses of Two Early Copper Age Sites on the Great Hungarian Plain*

The Early Copper Age is a unique and poorly understood period on the Great Hungarian Plain. Two neighboring sites excavated by the Körös Regional Archaeological Project offer insight into Early Copper Age settlement and activity on the Plain. Intra-site spatial analyses performed at both sites utilizing GIS offers comparisons and contrasts between the two sites. Deciphering spatial elements of these two sites will add to our understanding of the changes that occurred during this period, as well as elucidating the impact that the transition from the Late Neolithic to the Early Copper Age had on individuals living in the region.

**Morrison, Alex (UH Manoa)**

[50] *Measuring Artifact Distribution from the Coast Inland: Results from the 2005 Terevaka Survey*

Understanding prehistoric settlement patterns on Rapa Nui requires properly documenting variability in artifact distributions across a variety of environmental zones. In 2005, the University of Hawaii Archaeological Field School conducted field surveys aimed at identifying archaeological materials from the coast to the top of Rapa Nui's highest peak, Teravaka. Drawing on five years of survey data from the northwest coast, this paper explores measuring variability in artifact distributions through Geographical Information Systems (GIS) analysis. Special emphasis is placed on building methodology for separating temporal and spatial patterning across the Rapa Nui landscape.

**Morrison, Bethany (Western Connecticut State University) [11] Discussant**

**Morse, Birgit F. [52] see Glascock, Michael D.**

**Morton, Shawn (University of Calgary)**

[117] *Processional and Post-Processional Routes: Site-Planning Principles and Processional Ritual at the Maya Site of Naachtun, Guatemala*

While it is likely that Classic period Maya procession rituals were designed to take advantage of existing concepts of space and directionality this paper questions: Rather than being a product of abstract symbolism, is it not possible that the site-planning principles of a Classic period Maya center may be based simply on the spatial requirements of ritual? Following a discussion of the Maya procession ritual as it appears in post-conquest documents and in Classic period art, it will be suggested that the site plan of Naachtun, Guatemala, incorporates the spatial characteristics associated with several forms of procession ritual.

**Moseley, Michael (University of Florida) [113] Discussant; [167] Discussant; [175] Discussant**

**Moseley, Michael (University of Florida) and deFrance, Susan (University of Florida)**

[53] *Maritime Sites from Southern Peru and the Mid-Holocene Hiatus in Coastal Exploitation*

Previous studies concerning pre-ceramic maritime exploitation on the south coast of Peru indicate that following the initial use of coastal resources during the Late Pleistocene and Early Holocene there was a mid-Holocene hiatus in coastal occupation. Reoccupation of the coast occurs in association with the stabilization of sea level approximately 5000 years ago. Chronometric dating of previously unreported archaeological sites from the far south of Peru support a model of reduced coastal exploitation for several thousand years. This presentation

describes these sites and explores some of the ecological and social ramifications of intermittent coastal occupation.

**Mosher, Rosemary [148]** *see* Bampton, Matthew

**Mount, Jerry [148]** *see* Schwarz, Kevin

**Moyes, Holley (University at Buffalo)**

[29] *Cave Ritual as a Political Resource in the Consolidation of Power among the Ancient Maya*  
Although research on Maya cave sites has clearly defined them as sacred spaces, there has been less success in articulating cave ritual with larger socio/political spheres. Recent work at Chechem Ha Cave in western Belize has shown that by using a variety of proxy measures, it is possible to chart variability in the intensity of use. In this paper, I discuss the nature of ritual activity in the cave during the Preclassic to Early Classic transition, and I argue that cave rituals were an important political resource during this crucial period of the consolidation of elite political power.

[9] *see* Voorhies, Barbara

**Mrozowski, Stephen (UMass Boston/Fiske Center)**

[186] *Interwoven Destinies: Post-Colonial Identities and the Archaeology of Colonialism*  
This paper explores the interwoven destinies of contemporary archaeologists, the people they study, and the descendants of those people. With the archaeology of Sylvester Manor as a starting point, this paper examines the connections between this Long Island plantation and the two sugar plantations on Barbados it helped to provision during the seventeenth century. Archaeological evidence of cultural interaction between European, Native American and possibly enslaved Africans from Sylvester Manor is interpreted within a post-colonial framework informed by discussions with Long Island Native populations and the descendants of slave populations who worked on the still operating plantations on Barbados.

**Mueller, Raymond (Richard Stockton College of NJ) and Joyce, Arthur (University of Colorado-Boulder)**

[14] *Pedologic and Geomorphic Evidence for Pre-Hispanic Extensive Anthropogenically-induced Soil Erosion in the Nochixtlán Valley, Oaxaca, Mexico*

Extensive erosion in the Nochixtlán Valley has been seen as the result of post-European landuse changes. Regional geomorphology and paleopedology surveys indicate otherwise. Radiocarbon dating of 32 buried paleosols indicates erosion and deposition occurred repeatedly, well before European contact. Erosion episodes are associated with periods of population growth, and agricultural expansion in the valley. Radiocarbon dates from truncated paleosols indicate that a change from stream deposition to incision occurred prior to European contact. Surveys have also discovered Archaic sites confirmed by radiocarbon dates of associated soils. We discuss the implications of our research for the discovery of additional Archaic sites.

**Munoz, Cynthia [137]** *see* Hard, Robert

**Muñoz, A. René [190]** *see* Scherer, Andrew K.

**Munro, Natalie (University of Connecticut) and Bar-Oz, Guy (University of Haifa)**

[215] *Gazelle Bone Marrow Yields and Epipaleolithic Animal Exploitation Strategies in the Southern Levant*

We investigate the bone marrow yields of mountain gazelle (*Gazella gazella*) to reconstruct human resource exploitation strategies and carcass utilization during the Epipaleolithic of the southern Levant. We present experimentally derived data on the bone marrow content of four gazelle carcasses, discuss variation in marrow yields, and compare the new data to gazelle skeletal element abundances from five Epipaleolithic assemblages from Israel. Human processing of bones for marrow is the primary cause of bone survivorship and fragmentation. Intraspecific variability in marrow yields related to the sex and physiological condition of modern gazelles suggests seasonal variation in prehistoric animal exploitation.

**Munson, Jessica (University of Arizona)**

[156] *House Mounds, Temples, and Landscapes: Domestic Land Use and Sociopolitical Organization of Late Classic Seibal*

Ancient Maya land use practices modified the landscape during centuries of occupation at



Seibal. These shifting settlement and land use patterns left visible traces on the landscape in the form of abandoned temples, domestic structures, and artifact assemblages, which were recorded by the Seibal Archaeological Project. Similar to Aguateca, Seibal experienced political and social reorganization at the onset of the Late Classic. In light of recent archaeological studies within the Petexbatun region, this paper reexamines Seibal's settlement data and organizational history using spatial analysis to quantify changes in domestic land-use patterns during Seibal's Late Classic occupation.

**Murakami, Tatsuya (Arizona State University)**

[236] *Monumental Architecture and Political Processes in Early Teotihuacan: An Energetic Perspective*

Recent intensive excavations at the Moon Pyramid have yielded substantial data on the sequence of seven superimposed pyramids, of which the first pyramid is probably the oldest monument in this area of the city. This study presents an energetic analysis of the first pyramid, utilizing labor costs as a proxy measure for the scale of power and the degree of centralization, and reconsiders the view that early polity at Teotihuacan was centralized and possibly autocratic. I put the result into the context of political processes in the Formative Central Mexican Highlands in general.

**Murphy, Betsy [244]** *see Delvaux, Thomas R.*

**Murphy, Joanne (University of Akron)**

[223] *Rare Rituals: Evidence for Religious Practices in Settlements in South Central Crete*

This paper discusses the available evidence for religious practices in the Prepalatial and Protopalatial settlements of south-central Crete. My research shows that the contemporary and related tombs have substantial amounts of evidence for religious activity, for both the Prepalatial and Protopalatial periods. In stark contrast to these tombs, the settlements have a very low level of evidence for religious activity in the Prepalatial period. During the Protopalatial period there is an increase in the evidence for religious rituals in the settlements suggesting a shift in the location and function of religion in south central Crete.

**Murphy, John (Arizona State University and University of Arizona) and Kinzig, Ann (Arizona State University International Institute for Sustainability)**

[160] *The Hohokam Water Management Simulation: A Modeling Philosophy and Its Advantages*

The Hohokam Water Management simulation, a computer model of irrigation, agriculture, and social organization, is guided by a modeling philosophy characterized by collaboration and the use of modeling within a process of theory building and concept exploration. The framework allows us to ask specific kinds of questions that many other archaeological models have not permitted, including "what-if" questions about alternative trajectories of the past. This approach is appropriate and arguably necessary to the consideration of a past society as a complex system. We describe this philosophy and illustrate the benefits of this approach with results from the simulation.

**Murphy, Melissa (Bryn Mawr College)**

[115] *The Problem with the Protohistoric Period: A View from the Cemetery of Puruchuco-Huaquerones, Peru*

Any interpretation of the protohistoric period must contend with specific theoretical and analytical challenges, for example, defining and identifying the period in question. Recently excavated burials from the cemetery of Puruchuco-Huaquerones, Peru may provide new insights into the years immediately following the Spanish conquest of the Inca empire in Andean region. This paper describes how bioarchaeological data from Puruchuco-Huaquerones, dating immediately prior to and after the Spanish conquest, coupled with ethnohistorical sources detailing the extirpation of traditional Inca mortuary practices confronts and contends with some of the theoretical and methodological challenges to understanding the protohistoric period.

**Murphy, Reg [84]** *see Watters, David*

**Murray, John [2]** *see Zedeno, Maria Nieves*

**Murray, Matthew (University of Mississippi)**

[101] *What Is This Place? Archaeology and Folk Landscapes in Southeastern Germany*  
This paper introduces a new archaeological investigation in Lower Bavaria, Germany, in which folk landscape is a valuable conceptual tool in the analysis of past and present rural landscapes. Folk landscapes are local landscape ideologies – in essence, systems of categorization, naming, and interpretation. Elements of folk landscapes can be detected through analysis of place names – spatial categories – and place knowledge of members of rural communities that reflect forms of experience, interpretation, and explanation. I examine place naming and contemporary landscape knowledge in order to identify folk landscape characteristics that can assist in the discovery and interpretation of archaeological sites.

**Murray, William Breen (Universidad de Monterrey)**

[196] *How Does It Work? Functional Replication and the Possible Uses of Rock Art*  
Functional replication provides an experimental test of hypothetical uses at real sites by placing rock art manifestations within the total site landscape. This study looks at two activities--sky watching and atlatl hunting--in relation to rock art sites in northeast Mexico. Each corresponds to a distinctive set of motifs with a characteristic distribution.

**Murtaugh, Martin J. [244]** see Brill, Robert H.

**Murtha, Timothy (Penn State University)**

[159] *Vernacular Architecture and Every Day Spaces of the Classic Maya*  
Studies of Classic Maya architecture focused traditionally on palaces and monumental constructions, where meaning and style are often formalized or institutionalized. This paper examines the vernacular architecture and everyday spaces within and between Tikal, Guatemala and Caracol, Belize in order to identify the cultural factors influencing regional and sub-regional patterns and variation.  
[179] see Silverstein, Jay

**Mustonen, Heather [43]** see Quates, E.W. Duane

**Myer, Caroline [217]** see Porter, Jason

**Myers, Bethany (Southern Illinois University)**

[238] *Yukatek as an Ethnic Identity Marker in Classic Period Mayan Texts*  
Specialists generally agree that the primary language recorded in Mayan hieroglyphs is Ch'olan. However, Classic period hieroglyphs spelled in Yukatekan were also widespread throughout the southern Maya Lowlands. This paper synthesizes the quantity, temporality, and spatial extent of Yukatek spellings in Classic Period texts. Language is an important mechanism actors use to identify themselves with particular social groups. The use and distribution of Yukatek spellings suggest they functioned, in part, as markers of ethnic identity throughout the Classic and Postclassic periods. These data have important new implications for our understandings of elite interactions and political organization in the Maya Lowlands.

**Nagaoka, Lisa (University of North Texas), Wolverton, Steve (University of North Texas) and Smith, Ian (University of North Texas)**

[6] *Conservation Implications of New Zealand Fur Seal Pup Remains*  
Prior to human colonization of New Zealand, fur seal populations were estimated to be in the tens of millions. With prehistoric human predation and historic sealing, fur seal populations dramatically declined to a historic low of 10,000 individuals. Currently, fur seals are rebounding and expanding their range. Wildlife management agencies are interested in identifying coastline for potential new rookeries to target for protection. Archaeological data can aid in this effort by identifying locations of prehistoric rookeries. Morphometric data on prehistoric fur seal assemblages are used to identify population structure, in particular the presence of pre-weaned pups indicative of rookeries.

**Nagaoka, Lisa [79]** see Fullerton, Ben

**Nagel, Cindy [250]** see Hedden, John

**Nahrgang, Kris (Kawartha Nishnawbe First Nation)**

[241] *The Subject Within: The Symbolism of Stone Carving*  
Carving in stone is a journey, influenced by subtleties inside the stone as well as the artist's

environment, history and mood at the time of creation. It is an act of story-telling, innovative, symbolic, and steeped in the deep tradition of oral history. In this paper, the production of pre-contact stone art is examined in the context of depictions of the power and spirits of animal life forms, some of which inhabit other worlds, yet all of which exact influences in our world. Carvings, today and in the past, reflect the places these beings hold in our lives.

**Nakamura, Carolyn (Columbia University)**

[111] *Embodiments in Action: Neo-Assyrian Apotropaic Figurine Worlds*

This paper explores Neo-Assyrian apotropaic figurine practice as a technology of protection. Specifically, I consider how these rituals mediated the foundational notion that humans were created as servants to the gods. While this relationship established certain proper notions of subject, citizen and social agency, in practice, humans employed various techniques to negotiate and reform these ideals. In this vein I discuss apotropaic figurines as a complex mediation of the relationship between the creation of image and body and the power of the disembodied (the supernatural, divine, mythic and dead) and how it conferred protection in the human world.

**Nakamura, Seiichi (Japan Foundation)**

[210] *Copan in the 6th Century: Viewed from Two Groups Outside the Acropolis*

For the last 5 years, investigations by the Proyecto Arqueológico Copan (PROARCO) have demonstrated that the 6th century was an epoch in which the internal political complexity of the Copan Valley was notably augmented. PROARCO found the first royal tomb to be discovered outside of the Acropolis, dating to the early 6th century and suggesting an unexpected complexity of the political system by that time. Meanwhile, investigations at an elite residential group north of the Great Plaza uncovered important burials dated to the middle to late 6th century, indicating that the complexity of the political system extended throughout the elite levels.

[210] see Shiratori, Yuko

**Nascimento, I. [90] see Lopes, Paulo do Canto**

**Nash, Carole (Geographic Science, James Madison University)**

[243] *Scales of Temporality and Social Complexity: Middle Woodland Hunter-Gatherer Societies of the Interior Middle Atlantic*

Middle Woodland period mortuary complexes of the interior Middle Atlantic, evidencing restricted internment and controlled exchange, have been interpreted as short-lived expressions of societal ranking derived from a more settled, horticultural subsistence. Extremely limited archaeological evidence for Middle Woodland stratification, coupled with the attenuation of the bluff-top stone and earthen burial mound tradition at 1850 BP, has led to alternate hypotheses that explain the meaning of these features. In particular, GIS analysis of mound locations, coupled with complex hunter gatherer theory, points to Middle Woodland mounds as cyclical aggregation points organized around lineages engaged in large-scale harvesting and feasting events.

**Nash, Donna (University of Illinois, Chicago)**

[212] *Garbage or Goodies? The Archaeological Study of Wari Residential Remains in Moquegua*

Perspectives on the nature of abandoned materials recovered from archaeological households vary between investigators and determine the methodology used to excavate residential remains, and the interpretations that follow. In this paper I highlight the importance of assessing site formation processes in residential spaces and illustrate how different modes of household abandonment can make comparative analysis a complex exercise. As a case study, I compare several Wari residential contexts that were abandoned using different closure rites to show how these solitary ritual events may have affected the ways in which daily Wari household activity has been interpreted.

[21] Discussant; [149] see Williams, Patrick Ryan; [219] see Sharratt, Nicola

**Nash, Stephen E. (The Field Museum)**

[228] *Paul Sidney Martin, Vernon, Arizona, and the New Archaeology: Tales from the Archives*  
Paul Sidney Martin served as curator of North American Anthropology at The Field Museum for more than four decades. The last phase of his career, from 1956 until 1972, included fieldwork at more than 30 sites in east-central Arizona. Martin's Vernon Field Station, funded in part by the National Science Foundation's Undergraduate Research Participation Program, became a

training ground for young archaeologists and a testing ground for the New Archaeology. The paper examines the Vernon years from the perspective provided by The Field Museum archives, which contain detailed if idiosyncratic information about the significant changes in Martin's archaeology during this period.

[26] *Discussant*

**Nassaney, Michael (Western Michigan University)**

[186] *Identity Formation at a Frontier Outpost in the North American Interior*

Identity formation has been central to an archaeology in which material difference is more than just random variation or the product of selection. Individuals who vary by class, status, gender, race, and ethnicity actively construct the material world to create, reproduce, and transform their social relations. In the 18th-century the identities of French settlers and their Native allies were fluid, situational, and malleable. The social, political, and economic circumstances of the fur trade and colonialism influenced identity formation and had material consequences that are being investigated archaeologically at Fort St. Joseph, a frontier outpost in the western Great Lakes.

**Nation, Humberto (California State University, Los Angeles)**

[29] *Speleothem Sourcing Using Laser Ablation-Time of Flight-Inductively Coupled Plasma-Mass Spectrometry*

Recent studies have documented the breakage and removal of speleothems from caves on a massive scale and the incorporation of this material into surface site architecture. The recovery of speleothems in cultural contexts has the potential of providing important information on a range of issues if the speleothems can be chemically characterized so that different caves of origin can be recognized. The present is the initial report of a pilot study on the trace and rare element analysis of speleothems recovered from the Belize Valley using Laser Ablation-Time of Flight-Inductively Coupled Plasma-Mass Spectrometry.

**Nauman, Alissa (Washington State University)**

[108] *Kinship Revisited: An Engendered Perspective on Household Organization in a Chaco Period Great House Community on the Southern Colorado Plateau*

Household kinship relations in the pre-contact American Southwest and the methodologies used to reconstruct them have been debated in the literature. Although methods utilized in researching this subject have not always been highly regarded, it is nonetheless an inquiry important to understanding the organization of people. This poster explores learning frameworks in the gendered acquisition, manufacture and use of material goods and what we may infer about household organization and kinship relations at Cox Ranch Pueblo. The conclusions of this study may help in understanding the relationship between technological production of material goods and familial ties within pre-contact Puebloan communities.

**Neal, Lynn (EnviroSystems Management, Inc.) [11] *Discussant***

**Neff, Hector (IIRMES - CSULB) and Medrano, Sonia**

[9] *Central Mexicans on the Guatemalan Coast*

Bove's investigations in central Escuintla, Guatemala, have documented two distinct phases of Teotihuacan presence in the region, the second being marked by obvious changes in material culture. We summarize some of the ceramic changes, which can be detected not only in Escuintla but also farther west, in the Soconusco region. While obvious Teotihuacan-derived forms, such as theater censers and candeleros, are restricted to the Middle Classic apogee of Teotihuacan influence, serving vessel traditions introduced during the Middle Classic evolve gradually over the next several hundred years and persist into the Late or even Terminal Classic period.

**Neff, Hector [9] see Gasco, Janine; [44] see Gonzalez, Susana; [105] see Bradford, Ileana; [219] see Masucci, Maria; [219] see Makowski, Krzysztof**

**Neiman, Fraser (Monticello)**

[195] *Commodities as Costly Signals: The Case of Clay Tobacco Pipes in the 17<sup>th</sup>-Century British Atlantic*

Historians of the early-modern Atlantic use the phrase "consumer revolution" to denote the advent of mass production and the consumption of commodities. Clay tobacco pipes are among the earliest examples. Signaling theory offers the tools with which to model interactions among

Chesapeake pipe consumers, who used certain pipe attributes as unfakable signals of resource holding potential, and English pipe producers who designed pipes to maximize profits. The model offers precise predictions about formal patterning in pipe stem bore diameter distributions in time and social space. These are evaluated using data from 17th-century Jamestown, Virginia. [245] see *Smith, Karen Y.*

**Neitzel, Jill (University of Delaware)**

[240] *Still Too Many Types: A Comparison of Chiefdoms in the U.S. Southwest and Southeast*  
Despite much criticism, the typological approach continues to be widely used by archaeologists interested in variation and long term change in past societies. One new typology that has proven to be especially popular in the recent discussions about sedentary pre-state societies is the distinction between corporate and network leadership strategies. In this paper I consider the pros and cons of using the typological approach in general and the corporate/network categories for the studying the organization of ancient societies in of the U.S. American Southwest and Southeast.

**Neivens de Estrada, Nina (Tulane University), Estrada-Belli, Francisco (Vanderbilt University) and Callaghan, Michael (Vanderbilt University)**

[208] *Las Épocas Tempranas de la Civilización Maya en el Petén Oriental: Nuevos Resultados del Área de Holmul*

Se presentan hallazgos del sitio Preclásico de Cival de ofrendas rituales y arquitectura ceremonial así como arquitectura y cerámica del Preclásico Medio en Holmul. Estos datos, junto a la secuencia cerámica regional, nos permiten identificar las primeras pautas del desarrollo político y arquitectónico de centros ceremoniales en esta región durante el Preclásico. Excavaciones en Holmul proporcionan evidencias de desarrollo político en las épocas tempranas y de su primer auge en el Clásico Temprano. Estos datos nos permiten reconstruir procesos de alcance regional del área de Holmul en el Preclásico y Clásico Temprano

**Nelson, Ben A. (ASU)**

[221] *Making and Using Distant Connections at La Quemada, Zacatecas, in a Toltec World*  
Archaeologists using diasporic models of conquest and domination see connections between the Toltecs and distant polities elsewhere in Mesoamerica. Poles in this continuum are the Maya City-state of Chichen Itza in the south and the Chichimec ceremonial center of La Quemada in the north. Using updated chronology, this paper resituates evidence that admits La Quemada to the inferred Toltec network and considers alternative explanations for the spread of Epiclassic symbols. With or without foreign presence, those responsible for ritual leadership at La Quemada adopted and created new symbols and practices that marked an increasingly interconnected Mesoamerica.

[158] see *Elliott, Michelle*; [178] see *Turkon, Paula*; [216] see *Fisher, Christopher*

**Nelson, Kit (Tulane University) and Perales, Manuel (PANC)**

[168] *Socio-Economics System of the Northern Chancay: Late Intermediate Period Settlement Patterns in the Huaura Valley, Peru*

The Late Intermediate Period in the Huaura Valley of Peru is composed of large sites from the coast as far inland as Sayan. Settlement pattern data collected during a valley wide survey reveal a large system of adobe compounds. Diagnostic material culture is predominately that of the Chancay Culture, which is prevalent to the south, and almost completely absent to the north of the Huaura Valley. Based on GIS data modeling, historic documents, and previously published data, this paper discusses the settlement system and its possible implications for socio-economic organization during the Late Intermediate Period in the Norte Chico region.

[129] see *Arbolino, Risa Diamond*; [168] see *Mauldin, Devon*

**Nelson, Margaret (Arizona State University) [133] Discussant; [192] Discussant; [75] see Hegmon, Michelle**

**Nelson, Sarah (University of Denver) [58] Discussant**

**Nelson, Zachary (Brown University)**

[159] *Domestic Architecture and Decision Making at Piedras Negras, Guatemala*  
Domestic architecture decision making processes have been overlooked in favor of architecture form and functional aspects. This paper examines domestic architecture at Piedras Negras and

compares different masonry styles within domestic and ritual contexts around the center to understand the architectural trajectory of the site.

**Neme, Gustavo [152]** *see Adolfo, Gil*

**Netherly, Patricia J.**

[116] *What Makes a City? The Enigma of Urbanism on the North Coast of Peru*

The Moche and Chimú polities were ancient states. They were characterized by large settlements usually called cities. These appear top-heavy with platform mounds, palaces, and agglutinated compounds reflecting elite and mid-level occupation; evidence for primary producers is often absent. The physical remains of these large settlements have not been correlated with the socio-political organization and the political economy of these societies. The architecture and urban planning of North Coast cities reflect both. Once this is understood, the cities of the North Coast can be seen as an Andean variant of a world-wide process.

**Neves, Eduardo (University of São Paulo)**

[90] *Redundancy of Occupation and Landscape Formation in Pre-Colonial Central Amazon*  
Archaeological survey in the Central Amazon allowed the identification of almost 100 sites in a 30x30 km<sup>2</sup> area. Regional chronology identified 1 pre-ceramic and 4 ceramic occupations from 8,000 BP on. Survey results indicate strong degrees of redundancy in site occupation, since the majority of the sites are multi-componential. Sites stratigraphies indicate that high-growth vegetation did not develop on these places after final abandonment. Redundancy in occupation created a landscape mosaic of smaller islands of occupied areas or fallow surrounded by larger areas of high-growth forest. Such historical process led to the constitution of places with symbolic and material meanings.

**Neves, Eduardo [202]** *see Bartone, Robert; [202]* *see Rebellato, Lilian; [202]* *see Lima, Helena*

**Newell, Gillian (University of Arizona) and Gallaga, Emiliano (University of Arizona)**

[56] *Memin Pinguin 1:1 (Introducción)*

En contraste con el gran avance, tanto teórico como práctico, de la investigación arqueológica de Afroamericanos en los Estados Unidos, México se encuentra bastante rezagado y muchas de las investigaciones al respecto se concentran en el campo de la historia o antropología social, pero nada o poco en arqueología. La presente ponencia tiene como objetivo presentar la problemática de la investigación arqueológica sobre comunidades de origen africano en México, sus orígenes y sus perspectivas a futuro.

**Newell Dale, Vanessa [5]** *see Anderson, Lisa*

**Newman, Christine L. (Florida Bureau of Archaeological Research), Glowacki, Mary (Florida Bureau of Archaeological Research) and Dunbar, James S. (Florida Bureau of Archaeological Research)**

[248] *The Swamps and Sloughs of Southwest Florida: Their Early Occupants*

For the past several years the Florida Bureau of Archaeological Research has been documenting sites in a number of the larger sloughs and swamps of southwest Florida. Drawing on the data generated from these and other investigations, several ideas and thoughts about prehistoric and historic habitation in the interior wetlands are offered. Correlations between site distribution, hydrological conditions (both past and present) and changing land use patterns are discussed and placed within the context of the culture history of this region of the state.

**Newman, Elizabeth Terese [166]** *see Colten, Roger*

**Newquist, Ingrid (University of Florida)**

[227] *Contracted International Trade as an Archaeological Red Herring: Material Indications of Illicit Trade in the Colonial Commerce of Santo Domingo*

This paper uses ceramics recovered from Santo Domingo to discuss materials of illicit trade, as a concrete means to approach questions of the place of contraband in social networks. Historical texts testify to the flow of contraband, and the potential for archaeology to supplement this written record is vast. However, contraband has been difficult to identify materially, partially due to the presence of contracted foreign supplies exported to the colonies. This paper presents a case study of contraband objects from Spanish colonial sites to demonstrate the potential held by materials for furthering our understandings of colonial economic and social networks.

**Newsom, Lee (Penn State University) and Ortmann, Nicole (Penn State University)**[16] *Trends and New Directions in Palaeobotanical Research in the Caribbean*

Palaeobotanical research with plant macroremains in the Caribbean now spans at least two decades. Progress has been made with regard to sampling, recovery, taxonomic, and analytical procedures, resulting in relatively large assemblages of plant remains, especially wood charcoal, and an increasingly better perspective on ancient human-plant interactions in the region. This paper explores new directions in this arena of study, including utilizing wood collections for their dendrochronological records, efforts to recover information on plant use through chemical residues, the potential of wet sites, and the significance of ancient germplasm collections as a record of biodiversity and species dynamics.

[145] see Ortmann, Nicole; [164] see McKillop, Heather

Newsome, Seth [239] see Gifford-Gonzalez, Diane

**Newton, Anthony (University of Edinburgh)**[65] *Tephrochronology at La Alberca and Parangaricutiro Meseta*

Regional tephrochronology is based on several strato-volcanoes. This chronology is supporting reconstructions of the general cultural history and ecology of central Mexico highlands and associated lacustrine areas. The local tephrochronology of the volcanic plateaus is much more complex. Dozens of cinder cones, some with extensive lava flows have significantly shaped local landscapes over the past 8000 years. Detailed interpretation of local highland cultural ecology depends on a growing body of tephra samples and radiocarbon dates especially for the time period between 2000 and 500 years ago.

**Ng, Olivia (University of Pennsylvania)**[120] *Hololtunich: A Maya Community in 19th Century British Honduras*

In a world ever shrinking through the process of globalization, there are lessons to be learned from a more historical perspective of the process. One example is the village of Hololtunich, a San Pedro Maya settlement from the 19th century off the New River Lagoon. Research at Hololtunich explores how this small community maintained continuity with its traditions while participating in the global economy.

Nichols, Deborah L. [49] see Charlton, Thomas H.

**Nichols, Elizabeth (Northern Arizona University)**[99] *Spatial Patterns in Katsina*

*Representations* Duff (2002) recently published a fresh interpretive and methodological perspective on Western Pueblo organization and the development of group identities and interaction during the Pueblo IV period. I propose to build on Duff's research to further identify prehistoric Western Pueblo groups and changing patterns of interaction through the analysis of Pueblo IV ritual development. Using ArcGIS, I will be analyzing the spatial patterns of Katsina depictions on ceramics and rock art to investigate if the variation in Katsina iconography is patterned across time and space and infer whether Katsina ritual served to integrate villages within a geographically distinct region.

Nicholson, B.A. [187] see Boyd, Matthew

**Nicoli, Joe (Western Mapping Company), Sofaer, Anna (The Solstice Project), Price, Alan (Ohio State University), Kraybill, Lindsay (Western Mapping Company) and Stone, William (National Geodetic Survey)**[62] *Digital Restoration of the Sun Dagger Site, Chaco Canyon*

The Sun Dagger site, rediscovered in 1977, is an ancient Chacoan calendrical site consisting of three upright sandstone slabs casting light and shadow patterns onto two spiral petroglyphs marking solar and lunar cycles. In 1989, the Solstice Project found that the middle slab had pivoted from its original position. In 2005, using GPS and 3D LiDAR methods and legacy (1983) photogrammetric measurements, researchers produced two high-resolution 3D computer models of the 1983 and current (2005) positions of the slabs. The "restored" computer model will allow researchers to virtually study the complex astronomical relationships evident at the Sun Dagger site.

Nicoli, Joseph [62] see Haas, Wm. Randy

**Nielsen, Axel E. (Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina)**

[51] *Corporate Practices and Interregional Trade in the Late Prehispanic History of the Circumpuna Andes*

At the beginning of the second millennium AD interregional trade became more intense in the Andes of NW Argentina, SW Bolivia, and N Chile. This seems at odds with other data that indicate a shift from a network to a corporate mode of political action at the time. This apparent contradiction derives from the concept of "prestige goods," the main tool for theorizing the social value of foreign items. Instead, we propose to think of them as "corporate emblems," collectively owned inalienable possessions whose value lies in symbolic connections to the cosmological model that forms the basis of authority.

**Nieto, Ruben [142]** *see Sugiura, Yoko*

**Nieuwenhuis, Channah (Leiden University)**

[16] *The Significance of Starch and Phytoliths Studies: An Example from Plum Piece, Saba*  
Preceramic occupation of the Antilles is mainly known from coastal sites. Plum Piece on the island of Saba (Northern Lesser Antilles) is a unique inland site with evidence for preceramic Archaic occupation in a tropical forest setting. The site was probably occupied seasonally and used for specific activities. A number of ground stone artefacts was selected for microwear and residue analysis. A pilot study revealed starch and phytoliths. It is argued that these data will yield specific information on the function of these tools and on the importance of plant processing for dietary purposes.

**Nikolova, Lolita (University of Utah)**

[55] *Social Complexity during the Neolithic and Anthropology of Everydayness*

The archaeological data on the Neolithic in Eurasia allow to define a variety of models of social practices in multi-scale regional context. We will attempt to focus on the interpretation of the archaeological data in terms of diverse social strategies for cultural reproduction including evidence about the settlement pattern, cemeteries and contacts between close and distant communities. In the focus of our case study are the Balkans during the later 7th and 6th millennia cal. BCE and the interrelations between social complexity, hierarchy, solidarity and enculturation. We will propose theoretical models to be tested against other regions of Eurasia.

**Nilssen, Peter [40]** *see Bernatchez, Jocelyn*

**Nissengard, Jennifer (Los Alamos National Laboratory), Ferguson, John, Hinz, Emily, Issacson, John and Gauthier, Rory (NPS-Bandelier National Monument)**

[183] *Technological Advancements: Seismic Refraction on the Pajarito Plateau*

Geophysics provides techniques that can be used for non-invasive surveys at archaeological sites. Seismic refraction is one such technology that has many potential applications, although it has been underutilized. It is an inexpensive, efficient way to characterize subsurface deposits, especially at sites in shallow contexts over bedrock. Archaeologists and geophysicists participating in the Summer of Applied Geophysics Experience (SAGE), and from Los Alamos National Laboratory and Bandelier National Monument are working together to characterize Ancestral Pueblo (AD 1200 to 1600) sites. We present the results from three seismic refraction surveys and provide an overview of how seismic refraction works.

**Noah, Anna (UCLA Cotsen Institute of Archaeology)**

[41] *"There Was Rivalry and Emulation among the Towns:" Effects of Colonialism on Chumash Feasting*

Anthropologists have frequently noted that food consumption practices are resistant to change in the face of cultural assimilative forces. I use ethnohistoric, ethnographic, and archaeological evidence to examine changes in feasting practices of the southern California Chumash between the first Spanish land expeditions in the late 18th century and the beginning of the 20th century. Archaeological remains from a feast layer above an abandoned Island Chumash elite house provide a unique look at aboriginal feasting during the Spanish Mission period.

**Noble, Vergil (U.S. National Park Service)**

[130] *Site Preservation through Landmark Status in the American Midwest*

National Historic Landmark designation has greatly assisted efforts to preserve important archaeological sites throughout the Midwest. Such Federal recognition has contributed to the



protection of some sites by facilitating their acquisition by public agencies and private foundations. Technical assistance and matching grant programs set aside for NHL stewards are also available to help them with the design and execution of site management plans. This paper briefly reviews several recent Midwestern success stories and describes current efforts to identify additional archaeological sites for designation.

[130] *Discussant*

**Nolan, Elizabeth [246]** *see Davis, Peter F.*

**Nolan, Kevin (Ohio State University), Seeman, Mark (Kent State University) and Theler, James (University of Wisconsin - La Crosse)**

[100] *Hopewell Blade Production at the Turner*

*Workshop* In this paper we describe and analyze blade production at a small site adjacent to the Turner Earthworks, Hamilton County, Ohio. The Turner Workshop provides perhaps the largest sample of Ohio Hopewell (ca. 50-350 AD) blades and blade-cores recovered from a single site to date. Our focus is on describing the production process at Turner and comparing the results with those from other southern Ohio localities. Special attention will be focused on the variability introduced by increases in distance-to-source and its bearing on the question of specialized production in middle-range societies.

**Nolin, Brandon (University of Illinois at Chicago)**

[193] *Lake Patzcuaro, Resource Wars and the Forming of the Tarascan State: Applications of GIS in Archaeology*

Our understanding of the processes that shaped the Tarascan state is inadequate and little is known of the polities from which that state formed. This presentation analyzes how changes in the water levels of Lake Patzcuaro affected the availability of local resources such as irrigated and rain-fed farmlands. The stress created by these changes drastically affected tribute flows and increased competition for resources among local elites. This, in turn, may have directly contributed to the expansion of some polities within the basin and the eventual unification of the region under a central elite in Tzintzuntzan.

**Norder, John (Michigan State University)**

[205] *Landscapes of Memory and Presence in the Canadian Shield*

This paper explores enduring and shifting aspects of the created landscape, social memory and physical presence of Algonquian peoples from the Woodland period to the present in the Lake of the Woods region of northwestern Ontario. Extended research on ancient rock art, the most visible form of archaeological data in the region, suggests that the past landscape was marked in manners that served to facilitate certain types of social behaviors and interactions. This thesis is compared, in turn, with contemporary knowledge of the landscape to examine the relation between past and present and how this discourse informs the future for these communities.

[11] *Discussant*

**Norman, Garth (ARCON, Inc.)**

[27] *Parowan Gap Fremont Temple Center: Solar-Lunar-Stellar with 260-Day Calendar and Observatory: Colorado Plateau, Great Basin, Southwest, and Mesoamerica Ties*

The Parowan Gap Project (began 1993 partly funded by Federal Highways ISTE Grant) investigates a Narrows mountain gap in Southwestern Utah as a Parowan Fremont microcosmic religious center with sophisticated petroglyph calendars and over 25 observatory stations. ARCON's comprehensive data collection includes: (1) mile radius pedestrian archaeological survey of Gap area which identified, recorded, and analyzed interactive sites, (2) cave shelter test excavation dating back 5,000 years, (3) accurate record of all petroglyphs, (4) existing records search and ethnographic survey of Paiute and other Numic Indian beliefs, (5) archaeoastronomy survey of petroglyphs and outlying sites with solar-lunar-stellar calendar interactions.

**Norman, Neil (University of Virginia)**

[169] *Enter the Countryside: Regional Dynamics and the Fluoresce of Atlantic Trade in Southern Bénin, West Africa*

Considerable attention has been focused on contextualizing southern Béninese palace centers within trans-Atlantic systems of exchange. Though researchers have made convincing arguments that trading relations were dominated by African elite groups, studies of the interactions of African elite and non-elite groups and the dynamics of such relations in the face

of trans-Atlantic trade are still developing. This paper explores such interaction surrounding the palace of the Hueda Kingdom at Savi, Bénin. Specific attention will be focused on comparing the changing relationships between differing locales within African settlement systems as they negotiated the emerging Atlantic World.

**Normark, Johan (Goteborg University)**

[131] *Virtual Highways Becoming Actual Roads: The Causeways at Ichmul and Yo'okop*  
Causeways in the Maya area have generally been seen from functionalistic, socio-political, economical or cosmological perspectives. Such perspectives set the human being and culture as prime objects of study. A polyagentive approach, to use Borgsonian and Delouzian terminology, emphasizes the way in which materiality, as a virtual (qualitative) multiplicity, becomes actual (quantitative) multiplicities. Materiality is set in focus and is seen as an active force that shapes the way humans interact, both in the past and the present. The causeways at the sites of Ichmul and Yo'okop continue to effect people of today and becomings of these causeways are presented.

**Norris, Susan (Fordham University) and Olson, Jan (Grant MacEwan College)**

[236] *The Economy of Stone: Lithic Analysis of Postclassic Morelos Mexican Assemblages*  
Archaeological sites in Morelos, Mexico have offered an enormous amount of information on provincial households before and during the Aztec empire. In this paper we discuss the economic aspects of production, consumption and distribution of lithic materials. Lithic assemblages will be examined for differences in blade use, changes in acquisition networks, variation in tool types and production methods by period and by class level to provide information on how individual households operated within the Late Postclassic period.

**Novic, Juliana (Arizona State University)**

[236] *Houses and Households in Aztec Tenochtitlan: Understanding Domestic Architecture Using Archival Documents*

Archival records from early colonial Mexico City provide information about Aztec houses and households immediately following the Spanish conquest. Using documents located by Edward Calnek and others, I analyze these records by focusing on the physical dwelling. Data on size, spatial layout, and compound form can be combined with information from codices, chronicles, archaeological investigations, and early colonial documents to illuminate the social and material lives of the average Aztec households. Although archaeological data on domestic architecture from Tenochtitlan is sparse, archival sources allow us to examine the relationships among dwelling, class, and household form.

**Novotny, Anna (Arizona State University)**

[132] *The Bioarchaeology of the Holmul Region: A Preliminary Analysis*

The 2005 season of the Holmul Archaeological Project marked the first bioarchaeological study conducted using the Holmul skeletal material since the project's inception in 1911. Since 1911, the project has expanded to include excavation of other sites in the Holmul region – La Sufricaya, Cival, and K'O. This paper will present the preliminary osteological analysis of all human skeletal remains recovered from the lowland Maya sites of Holmul, La Sufricaya, and Cival, including remains curated at the Peabody Museum of Archaeology and Ethnology at Harvard University. Analysis considers paleopathological conditions, age, sex, and archaeological context.

**Novotny, Claire (University of South Florida) and Wells, E. Christian (University of South Florida)**

[234] *A Consideration of the Relationship between Settlement Hierarchy and Political Economy in the Naco Valley*

Settlement pattern studies in Mesoamerica tend to rely heavily on spatial referents for reconstructing political organization, often under the assumption that political economy is embedded in hierarchical growth. Recent archaeological work in the Naco Valley, Honduras, challenges this assumption by exposing some of the variability in political and economic ties between primary centers and their presumed subordinates. This paper compares chronological data from La Sierra, the Late Classic capital, and Palmarejo, the second largest site in the valley, to examine their periods of growth and decline. The evidence suggests that Palmarejo enjoyed relative autonomy before and after the Late Classic.

**Nowell, April (University of Victoria) and Mark White (University of Durham)**[98] *The Development of "Human" Patterning in Lithic Assemblages*

More than any other artifact, the Acheulian handaxe has been the subject of studies seeking to understand the relationship between stone tools and cognition. In particular, researchers have related increasing standardization and symmetry in handaxes at the level of the assemblage to changes in hominin cognitive abilities--particularly symbol use. This paper explores the many factors that may underlie handaxe morphology and discusses the evidence for the emergence of "human-like" patterning of material culture in the archaeological record.

**Nowell, April (University of Victoria) [98] Discussant; [162] see Bisson, Michael****Nystrom, Kenneth C. (Santa Clara University)**[47] *The Articulation of Archaeological and Biological Data in the Examination of Prehistoric Identity*

The bioarchaeological examination of prehistoric identity is an increasingly popular avenue of investigation. While material artifacts are commonly used to describe and characterize particular groups, they are only one facet in the construction of social identity. The purpose of this research is to examine the articulation between archaeological manifestations of identity and intra-regional genetic structure of Late Chachapoya groups. The results indicate that despite similarities in material culture there was a significant degree of between-group genetic differentiation. This research holds implications for the archaeological definition of identity not only within Chachapoya, but also in the broader Andean context.

[10] see Bracamonte Ganoza, Florencia; [51] see Church, Warren B.

**O'Brien, Karen [42] see Livingood, Patrick****O'Brien, Michael J. (University of Missouri)**[245] *A Brief History of Plowzone and Surface Archaeology*

As cultural resource management forced archaeologists to manage resources and determine what made a site significant, they began turning to surface and plowzone artifacts as important sources of information about such things as site structure and chronology. The 1970s and 1980s witnessed a literal explosion of methodological advances in extracting information from surface- and plowzone-artifact signatures, with less emphasis placed on the behavioral significance of those signatures. In a symposium devoted to behavioral inference based on surface and plowzone materials, it is perhaps instructive to revisit that earlier period in order to provide a historical context for modern analysis.

**Ocasio, Esq., Naniki Reyes (El Caney Quinto Mundo)**[123] *Gua'kia Areito: Our Story of the Ancestors Returned*

Ms. Naniki Reyes Ocasio, or Grandmother Naniki, will share the story of working with the Taíno Indian Community of Caridad de los Indios in Baracoa, Cuba. In 2002, the community received the human remains of seven of their ancestors. The remains, excavated and shipped out of Taíno burial sites in the 1910s, were returned to the community through the cooperation of many Native community leaders throughout the United States and Puerto Rico and in cooperation with the Smithsonian and Cuba's Foundation for Nature and Humanity. Ms. Reyes Ocasio will share her personal experiences related to this historical event.

**Ochoa, Sarahí (UDLA) and Sanchez, Guadalupe (INAH)**[224] *Cultural Continuity and the Bifacial Industry of La Playa, Sonora*

Archaeological investigations at La Playa have produced 358 projectile points and 193 bifaces. This component of the lithic collections identifies use or occupation of site from the Paleoindian to the late prehistoric period in which the majority of the point styles (53%) corresponds to the Early Agriculture period. This sample represents the largest collection of projectile points from a single site in the Southwest. An analysis and comparison of projectile point dimensions between point styles and time periods suggests that the transition from dart to arrow at La Playa possibly occurred during the Early Agriculture period.

**Ochoa-Winemiller, Virginia (Troy University Montgomery) and Maldonado Cardenas, Ruben (Instituto Nacional de Antropología e Historia-Yucatan)**[177] *At the Core of Chichan Tiho: A Current Perspective about Dzibilchaltun's Landscape and Its Periphery*

During the 1960s, research conducted by the Middle American Research Institute at Dzibilchaltun contributed largely to the understanding of prehistoric settlement patterns in the Maya area. Progress made in the last decade provided an abundance of information regarding

community organization, historical development, and function of residential spaces. The purpose of this paper is to summarize recent information concerning the role of Dzibilchaltun in the ancient landscape of the Northern Yucatan Peninsula and its relationship with the major capitol of Ich Caan Ziho.

**Odell, George (George Odell) [226] *Discussant***

**O'Donnabhain, Barra (University College Cork, Ireland)**

[82] *Immigrant and Indigenous: Colonial Encounters in Early Historic Ireland*

Recent theorising about the processes of colonisation has produced a more complex view of past interactions with a new focus at the level of the individual, a perspective that is particularly amenable to bioarchaeological investigation. Biological, historical and material culture data combine to form a basis for inference about population mobility and social interactions at the end of the first millennium AD between groups that were drawn from widely separated areas of origin: Ireland and Scandinavia. Differing cultural responses to biological hybridisation suggest that identity was not determined solely by genealogical descent but also by pragmatic social and political considerations.

[82] *see Hallgrímsson, Benedikt*

**O'Donovan, Maria (Public Archaeology Facility) and Carroll, Lynda (SUNY-Binghamton)**

[13] *Between Labor and Leisure: Tourism and Social Relations in 19th and Early 20th Century America*

Leisure is often conceptualized as freedom from labor. This understanding sets up a dichotomy between work (as production) and leisure (as consumption). We question this definition of leisure and examine the dialectic between work and leisure. The roots of leisure lie with the upper class; its extension to other classes is problematic. Its confinement to the realm of consumption is also misguided within non-elite contexts. Leisure is productive of class, ethnic and gender solidarity and creative of meaningful places. These points are given depth through examples of the development of tourism in America in the 19th and early 20th centuries.

**O'Gorman, Jodie (Michigan State University) and Lewis, Kenneth (Michigan State University)**

[92] *Saints' Rest Community Archaeology Program*

As part of Michigan State University's Sesquicentennial celebration, the Department of Anthropology has engaged the university community in the archaeology of Saints' Rest. Home to the earliest students of Michigan's Agricultural College, Saints' Rest was in use from 1856 to 1876 when it was destroyed by fire. Drawing upon the heritage of MSU's Land Grant philosophy we use the practice of historical archaeology to connect with numerous segments of the broadly defined university community. Archival, archaeological, and architectural aspects of our research are presented as situated within the context of and critique of community archaeology.

**Ogundiran, Akinwumi (Florida International University, Miami)**

[169] *Investigating Oyo Imperialism in Central Yorubaland: The Archaeology of Ede-Ile, 1600-1800*

Recent excavations in Central Yorubaland, especially in Upper Osun area, were aimed at understanding the regional aspects of Oyo imperial expansion between the late sixteenth and early nineteenth century. Focusing on Ede-Ile, a garrison-settlement established by Oyo in the early seventeenth century, this paper will examine the political economic factors that motivated the Oyo southward thrust into Central Yorubaland, the conditions that favored the establishment of Oyo imperial power in Upper Osun area, and the instrumental means deployed by Oyo to neutralize opposition to its imperial expansion in the region.

**O'Hara, Michael (SWCA Environmental Consultants) and Downum, Christian (Northern Arizona University)**

[165] *The Archaeology of White House Pueblo*

The work of Earl Morris at White House Pueblo has never received much attention because of the lack of full analysis and a published report. Recent analysis of archival material and artifacts allows greater understanding of the construction, use, renovation, and abandonment of this important site. The excavations of Morris revealed Pueblo I pit houses underlying a Chacoan great house constructed in the AD 1070s and 1080s. Portions of this great house were burned and it was later re-occupied and considerably expanded by Mesa Verdean peoples. Artifacts also reveal later ceremonial use of the site by Navajo and Pueblo peoples.

**O'Hear, John W. (Mississippi State University), Linder-Linsley, Sue (Chickasaw Nation) and Lieb, Brad R. (Mississippi State University)**

[242] *The Chickasaw Collection*

In 2003, the Chickasaw Nation acquired three large artifact collections from the vicinity of Tupelo, MS. They represent one of the largest assemblages of Historic Indian period artifacts known from North America. An agreement between the collectors and the Chickasaw Nation requires the collectors to assist in reconstructing the provenience of the items, including identification of sites and features within sites. The Cobb Institute has been working with the Chickasaw Nation to carry out an inventory of the collection and conduct interviews to reconstruct provenience data. This paper presents an overview of the collection, its provenience, and some of the emerging patterns.

**Ohnersorgen, Michael (University of Alabama at Birmingham), Berney, Christine (Arizona State University), Holthuysen, Jaime (Arizona State University), Mathiowetz, Michael (University of California, Riverside) and Parks, Rebekah (Arizona State University)**

[140] *Survey, Surface Collection, and Aztatlán Community Organization at Chacalilla, Nayarit, Mexico*

Archaeological survey and surface collection conducted at Chacalilla, Nayarit, provide initial observations on the internal settlement organization of a community associated with West Mexico's Aztatlán tradition. The Postclassic Aztatlán tradition, a widespread symbolic and material culture complex centered along the Nayarit-Sinaloa coastal plain, remains poorly understood in terms of mechanisms of interaction (e.g., trade, marketing, prestige relations) and social positions of individuals involved. Research at Chacalilla addresses community social organization and provides data on the intrasite distribution of material goods associated with the Aztatlán complex, clarifying their social and economic contexts to test competing interaction models.

**Ohnstad, Arik (Vanderbilt University), Smith, Scott (UC Riverside) and Janusek, John**

[54] *Social and Spatial Disjunction: Landscape, Power, and Memory During the Late Formative at Khonkho Wankane, Bolivia*

Khonkho Wankane was a major center in the southeastern Lake Titicaca Basin during the region's Late Formative period. This phase witnessed the formation of multi-community polities--and, toward the end of the phase, the rise of supraregional power at nearby Tiwanaku. During this long period of sociopolitical change, settlement at Khonkho underwent a number of radical transformations. We examine these disjunctions in light of the spatial, temporal, and iconographic patterning of the site's monumental stelae, and outline the role of social memory, as encoded in natural and built landscapes, in shaping and subverting the political projects of local leaders.

**Ojeda, Bernardino (Private Investigator) and Benfer, Robert (University of Missouri-Columbia)**

[167] *CIZA Investigations in the Terminal Preceramic of Western Central Perú*

The Centro de Investigaciones de Zonas Áridas (CIZA) has researched the economic importance of cotton production and the extent of monumental architecture in the Terminal Preceramic Period of Perú. The importance of cotton suggested by Lanning and Fung was confirmed in our work at Paracas, Asia and El Paraíso, among other sites. Chupacigarro (Caral) and Buena Vista are the most important sites currently under investigation. The calendric complex at Buena Vista, dated to 2,100 cal. BC, suggests that this site played a central role in the development of flood plain agriculture embedded in a dual maritime/farming economy.

**Öksüz, Banu [215] see Hongo, Hitomi**

**Oliver, J.S. (Illinois State Museum), Gauld, S. (Santa Monica College, Santa Monica CA), Campbell, S.A. (University of Manchester, Manchester UK), Carter, E.F. (UCLA, Los Angeles CA) and Kansa, S.W. (The Alexandria Archive Institute, San Francisco CA)**

[132] *Feasting on the Dead?: Processing of Humans at Domuztepe, a late Neolithic Halaf Settlement in South Central Anatolia*

Taphonomic analysis of ~2000 human bone fragments (MNI 37) from a 5570 BCE pit at Domuztepe, Turkey, indicates that thorough corpse processing, as well as possible intentional killing and cannibalism preceded an Halaf funerary activity. Evidence of these behaviours

include: 1) head trauma, abundant cutmarks, percussion marks, impact fractures, and thermal damage to human bones; 2) human bones are commingled with processed animal bones (NISP ~3700); 3) pit stratigraphy indicating a short deposition period; and 4) a ceramic sherd likely depicting some aspects of these activities. Alternative explanations of this dramatic indicator of Neolithic Halaf social complexity are explored.

**Oliver, José R. (Institute of Archaeology - UCL)**

[1] *Taino Interaction and Variability Between the Provinces of Higüey, Eastern Hispaniola, and Otao, Puerto Rico*

This paper discusses the key issues on inter-island interaction through a comparative examination of Taino material culture from the Higüey province on the eastern coast of the Dominican Republic (D.R.) and the karst mountain area of Utuado-Caguana in Puerto Rico. Recent archaeological data from El Cabo (D.R.) obtained by the Punta Cana Archaeological Project (Leiden U. and Institute of Archaeology), and from other D.R. sites, as well as from the Utuado-Caguana Archaeological Project (Institute of Archaeology & Institute of Puerto Rican Culture), coupled with XVI Century ethnohistoric information, provides new and reinforces older interpretations on Caribbean interaction processes.

**Oliver, Jose R. (Institute of Archaeology-UCL)**

[205] *Cemis and Human Agency or Religion and the Making of Taino Political History*

This paper analyzes the role that Taino religious beliefs played in the exercise of political power in the Caribbean from an actor/agency theory (distributed person). Key to the exercise of power is the asymmetry and nature of the relationship between the cemi numinous forces (often sculptured into objects) and their human trustees. These cemi are not merely "representations" (objects d'art) of numinous entities but sentient beings, with personal histories, discrete powers, reputations, and ancestry. How their histories built and intertwined with those of the Taino people set the evolving scenarios in which religious beliefs shaped political action in a multinatural landscape.

**Oliver, Jose R. [16]** see Pagan-Jimenez, Jaime R.; see Rivera-Fontán, Juan A.; [84] see Rodríguez Ramos, Reniel

**Olivera, Paula [219]** see Delgado, Mercedes

**Olsen, Bjørnar (University of Tromsø, Norway)**

[121] *Genealogies of Asymmetry: Why Things Were Forgotten*

The study of things has long fallen victim to an intellectual tradition that has devaluated and stigmatized the material. Despite the renewed interest in material culture witnessed in a number of disciplines, its materiality and "thingyness" continues to be sacrificed in favor of the readerly veil of humanly embodied meanings that envelopes it. Trying to explain the oblivion of the thingy, the author traces an effective history of asymmetry and suspicion toward things in Western thinking.

**Olsen, Bjørnar (University of Tromsø, Norway) [180]** *Discussant*

**Olson, Jan [12]** see Doherty, Heather; [236] see Norris, Susan

**Olson, Kirsten (Columbia University)**

[218] *Memorial Households and Living Tombs in the SE Andes, AD 1000-1400*

During pre-Inka times, the Santamariana culture, defined archaeologically by its ceramics, developed along the southeastern Andes. Notable ceramic forms were large decorated urns often used as mortuary containers for infants. These urns have been recovered in cemeteries, but also in household contexts, co-existent with living residents. Burials of adults shifted through time from separate cemeteries to crypt tombs amid households. Acknowledging the creativity and historicity of the constitution of material worlds, this paper explores how Santamariana culture reproduced itself vis a vis material culture and practices that created and were shaped by the particularly quotidian nature of mortuary treatment.

**Olszewski, Deborah (University of Pennsylvania)**

[138] *Results of the 2004 Chert Survey in the Wadi al-Hasa, Jordan*

The 2004 survey for chert sources in the Wadi al-Hasa region of Jordan complements previous chert survey undertaken here in 2000. Five separate chert sources have been identified; four are

within the Wadi al-Hasa drainage system, and one is some 16 km to the south-southeast near the village of Jurf ad-Darawish. The 2004 season also conducted lateral exploration of the chert sources. Results of the 2000 and 2004 surveys and implications for use of cherts (and other lithic raw materials) at Upper Paleolithic and Epipaleolithic sites in the Wadi al-Hasa are discussed.

**O'Mansky, Matt (Youngstown State University) and O'Neal, Michael (University of Delaware)**

[35] *New Approaches to Ancient Earthworks: Implications for Reconstructing Sociopolitical Processes*

Ancient earthworks are ubiquitous worldwide and research on these constructions can yield important information regarding past societies' socio-political and economic structures. While many studies discuss earthworks based on current forms with limited excavations, we present a case study based on recent research at the Hopewell Mound Group to emphasize the benefits of quantitative approaches to reconstructing ancient earthworks. This approach allows for insight into natural processes that result in morphologic and stratigraphic changes that add complexity to the archaeological record. Implications of this work for broader studies are explored with particular focus on the ancient Maya and Olmec.

**Omvig, Jeremy (Northern Arizona University)**

[99] *Symbols on the Landscape: A GIS Analysis of Emblematic Sites on the Northern Plains*

Throughout the high plains of North America, investigation into the role of environment in the placement of archaeological sites frequently focuses on the identification of functional site types, such as occupation or procurement sites. This research examines how specific environmental variables affect the establishment of sites that are largely symbolic in nature, focusing on medicine wheels, rock effigies, and rock alignments. I use GIS analysis to identify and explore trends in this relationship. Early findings suggest that within the high plains, viewshed often plays an important role in the establishment of such sites, with other variables exerting minor influence.

**O'Neal, Michael [35] see O'Mansky, Matt**

**Ordoñez, Margaret T. (University of Rhode Island)**

[210] *Royal Cloths: Textiles from Early Classic Maya Tombs at Copán, Honduras*

Excavations of three royal tombs by the Early Copán Acropolis Program recovered a variety of Maya textile fragments. Made of cotton, bast fibers, leaves, and bark cloth, the fabrics are examples of weaving, warp and weft twining, and alternate-direction layering. Most remarkable are fragments made of up to 25 layers of different cloths interspersed with layers of minerals. While images of rulers in ornate textiles are common in stone, actual fabric specimens are rare. The Copán textiles provide information about composition and structure of this once abundant component of ancient Maya material culture.

**O'Rourke, Laura (UC Berkeley)**

[27] *Late Classic Figurines from Las Galeras, Veracruz*

This paper presents the figurine materials from the archaeological site of Las Galeras, a medium-sized village in the region of San Lorenzo. The figurine fragments were recovered from a Late Classic patio group located near the ceremonial center of the village. Although fragmentary, the figurines appear to be closely related to Late Classic Maya figurines, suggesting cultural ties between southern Veracruz and the Maya region during a very dynamic period in Mesoamerican history. Although little is known about the ethnic makeup or language of these people, this paper suggests that an important part of their cultural identity was tied to Maya centers further east.

**Ortega, Marco Antonio (University of Calgary)**

[67] *Who Was that Masked Man*

The presentation looks at the relation between figural art and the archaeological record, specifically the identification of groups in Mixtec codices, in an effort to better understand cultural identity and interaction during the post-classic in Mesoamerica. Within the Mixtec codices a group of individuals can be identified by their distinctive costume, hair, weapons and ritual behaviors. Scholars have identified these individuals as Sami-Nuu, Nahua groups, possibly Toltecs. Individuals with similar characteristics found on Torre Polychromes from Cholula may provide further evidence of a distinct foreign influence, and roles of these individuals within a Mixtec narrative.

**Ortega, Victor [56] see Meza, Abigail**

**Ortiz Augilú, Juan Jose (University of Puerto Rico - Cayey), Cortés-Santiago, M. A. (University of Puerto Rico) and Rodríguez-López, J. (Universidad Complutense-Madrid)**  
 [84] *Roads, Sites and Territories: A Pilot Study on Pre-Columbian Landscape Use in Puerto Rico*

Archaeological and geographic data sets from southern Puerto Rico were combined to examine whether there were any correlations between Pre-Columbian site locations and traditional roads. The results suggest that there is a positive correlation between these two variables and that ancient communication lines may be more clearly defined by conducting such an exercise. As a result, the territorial expansion and/or interaction sphere of some communities could therefore be partially reconstructed and later tested with excavation and 14C dating. The research demonstrates that non-intrusive analysis of topographical and archaeological features may hold promise for examining changes in settlement patterns through time.

**Ortiz-Caballos, Ponciano (Instituto De Antropología - Universidad Veracruzana) [136]**  
*Discussant; [86] see Rodriguez Martinez, Carmen*

**Ortiz-Caballos, Ponciano (Instituto de Antropología - Universidad Veracruzana) and Rodríguez-Martínez, María del Carmen (Centro INAH Veracruz)**

[23] *Cronología de la Cerámica Olmeca en la Cuenca Baja del Río Coatzacoalcos*  
 Durante mas de 30 años ha servido de base para la comparación de la cerámica olmeca el trabajo de M. Coe y R. Dihel. La tierra de los olmecas, si bien es cierto que aun es altamente funcional, sin embargo a la luz de los nuevos datos consideramos que se requieren algunos ajustes y modificaciones. Los trabajos en la cuenca baja que se han venido efectuando por el Proyecto Manati han permitido complementar aquellos datos y definir mejor algunas de las fases, es especial la de los periodos preolmecas. Presentamos un resumen de esta nueva secuencia cultural.

**Ortman, Scott [107]** *see Adams, Karen R.*

**Ortmann, Nicole (Penn State University) and Newsom, Lee (Penn State University)**

[145] *Paleoethnobotanical Research at the Tibes Archaeological Site, Ponce, Puerto Rico*  
 Archaeobotanical research at Tibes, an early Caribbean civic-ceremonial center, is part of a long-term project at the site that is beginning to illuminate some of the fundamental details of the site structure and functions, including the general locations where domestic and perhaps other activities were performed and concentrated. This paper examines the paleoethnobotanical aspects of Tibes, focusing on the environmental circumstances, agricultural potential, the multiple roles of biotic resources, and in view of interpretations of the site as a venue for an emerging and developing stratified society.

**Ortmann, Nicole [16]** *see Newsom, Lee*

**Osborn, Jill (USDA Forest Service)**

[38] *Passport in Time*

The USDA Forest Service has hosted the Passport in Time (PIT) program for 17 years, engaging the public in historic preservation projects on national forests nation-wide. Beginning in 2006, we would like to invite other agencies to participate. Volunteers can help with every aspect of historic preservation, from the mundane to the exciting. They learn and have fun while helping accomplish preservation goals from survey to evaluation to curation. Perhaps most importantly, they become advocates for historic preservation. It is time to broaden the volunteers' dedication and expertise beyond Forest Service boundaries to historic properties and on all public lands.

**Osborn, Rebecca (University of Illinois at Chicago)**

[4] *Differential Use of Ritual Space at the Temple of Choque Ispana on the Coast of Peru*  
 The temple of Choque Ispana sits at the mouth of the Huaura valley on the central coast of Peru. The temple was burned by the Spanish in 1650 in the anti-idolatry movement and was later impacted by bulldozers in the 20th century. Still, the density of surface scatters indicates great potential for archaeological investigation. Preliminary survey has displayed marked differences in the use of space throughout the temple complex, including the presence of varied activity areas within the temple, and a clear distinction between the types of activities conducted in the interior and exterior of the temple.



**O'Shea, John (University of Michigan - Ann Arbor)**[211] *Social Configurations and the Study of Archaeological Funerary Theory*

The Archaeology of Death conference was a landmark in the development of theory in archaeology. In both the spread of archaeological cases and the range of historical, anthropological, and biological data considered, it seemed that at least in funerary studies archaeology had succeeded in developing a stable body of theory on which future substantive research could be based. Now, some 27 years after the conference, it is appropriate to consider how the archaeological theory of funerary practices has fared and to assess the degree to which its early promise has been realized.

**Ostapkowicz, Joanna (Liverpool Museum)**[70] *"...and the cotton was very well spun:" An Examination of Three Caribbean ("Taino") Cotton Artefacts*

Cotton - both in its raw state and as finished product - was one of the main commodities of trade within the Pre-Hispanic Caribbean. Cotton was ubiquitous - woven into objects of utility, wealth (e.g., belts) and, ultimately, veneration (cemis). Only a few cotton artefacts survive today in museum collections. Ongoing research on three of these important artefacts - two cemís and a beaded belt - offer new insights into Taino resource utilisation, weaving technologies and stylistic changes over time.

**Otis Charlton, Cynthia (Independent Research), Fournier Garcia, Patricia (Escuela Nacional de Antropología e Historia) and Charlton, Thomas (University of Iowa)**[216] *The Material Culture of the Basin of Mexico: Continuity and Change AD 1400-AD 1620*

The Spanish conquest of Tenochtitlan and the surrounding Basin of Mexico (1519-1521) traumatized the prehispanic cultures and realigned or replaced religious ideologies, political organization, and economic systems. Further transformations included the integration of those cultures into the bottom rungs of a Spanish Empire spanning the globe. However, archaeological studies of rural sites indicate substantial continuity in many aspects of material culture and less dramatic, more subtle changes. Comparable studies in Mexico-Tenochtitlan indicate earlier and greater changes in material culture. Continuity and change in figurine, ceramic, spinning, and obsidian industries will be presented.

Otis Charlton, Cynthia L. [49] *see Charlton, Thomas H.*

**Otterbein, Keith (University at Buffalo)**[41] *How War Began: The Derivation of Two Paths to War*

Warfare developed along two paths. Early hunters of large game engaged in combat using ambushes and lines. Peaceful agriculturalists in the Old and New Worlds, after they created states, engaged in battles and siege operations. The first path was derived deductively by combining such elements as hominid behavioral responses, lethal weapons use, and male-centered power groups. The second path was derived inductively by fitting archaeological sequences from four regions to a set of stages. Empirically it was found that despotic states preceded the development of warfare. The focus of the presentation will be upon the two types of derivations.

**Overturf, Jeff (USDA Forest Service Rocky Mountain Region), Wolley Vawser, Anne (Midwest Archaeological Center, National Park Service), Liestman, Terri (USDA Forest Service Rocky Mountain Region) and Ingbar, Eric (Gnomon, Inc.)***Seeing the Forest for the Trees: Information Management and Its Role in Historic Preservation*

The fields of archaeology and historic preservation are, by nature, very data-intensive. Professionals at government agencies, State Historic Preservation Offices, contracting firms, and academic institutions all collect and store a huge volume of information on archaeological and historic resources. While typical databases are designed and built for specific needs at a specific point in the historic preservation process, we submit that a more strategic vision is required to move cultural resource management from a reactive to a proactive approach.

**Owoc, Mary Ann (Mercyhurst College) and Gilligan, Shane**[252] *Prehistoric String Theory: Perishable Impression Design, Typology, and Significance in the Southern British Bronze Age*

Cordage and textile impressions on British prehistoric ceramics represent an invisible and largely under-explored class of archaeological material culture. Recent research by the authors on

Bronze Age ceramic impressions in southern Britain has produced evidence for varied, complicated, and regional patterns of construction and impression technique that have challenged and augmented current thinking about ceramic design, social organization and display. Following a presentation of the varied technologies employed in producing southern British perishable ceramic impressions, the extent to which cord and cord decorations were manipulated as elements of display and significance in particular contexts will be considered.

**Owsley, Douglas (Smithsonian Institution), Bruwelheide, Karin (Smithsonian Institution), Cashion Lugo, Maria and Romero Palanco, Dr. José-Luis (Universidad de Cádiz)**

[70] *Forensic Identification of Ramón Power: Puerto Rico's Diplomat to the 1812 Spanish Constitutional Court*

A commission of scholars and scientists was formed by the Puerto Rican government to identify the remains of Ramón Power y Giralt, the country's first diplomat and member of the 1812 Spanish Court. Power's remains were entombed in a small crypt within the Oratorio de San Felipe Neri Church in Cádiz, Spain along with the remains of 11 other diplomats. The investigation employed multiple lines of evidence in the identification, including comparisons of osteological profiles with available historical information, stable carbon and nitrogen isotope analyses, and mtDNA comparisons with bone samples taken from the Power family vault in Puerto Rico.

**Oyuela-Caycedo, Augusto (University of Florida)**

[113] *Ritual Paraphernalia and the Foundation of Religious Temples: The Case of the Tairona-Kogui, Sierra Nevada de Santa Marta, Colombia*

Recent radiocarbon dating of artifacts collected by K. T. Preuss in 1915 confirm the association in time with the proposed sequence of temple foundations of the Kogui, an ethnic group of the Sierra Nevada de Santa Marta. The antiquity of the temple foundations can be deduced from the genealogy of the priests in charge documented by Preuss. Ritual paraphernalia, like masks, which have obviously been created commemorating the foundation of a temple give us a hint in terms of modeling the bases of power and the development of monumental architecture. The antiquity of the masks still in use by the Kogui gives us the opportunity to connect the pre-Columbian to the actual iconography of ritual paraphernalia and by consequence try to explain and test the foundation of temples, the uses of paraphernalia by priestly organizations, and changes and continuities since pre-Columbian times.

[90] see Rivas, Santiago

**Padilla, Antonio E. (Texas Tech University), Morgan, Molly (Vanderbilt University) and Lohse, Jon C. (Texas Archeological Research Laboratory)**

[87] *Investigations at Akab Muclil, a Late Hinterland Settlement in Northwestern Belize*

During the 2005 season, we carried out investigations at Akab Muclil, a corporate group cluster located in an environmentally diverse area close to the Rio Bravo and adjacent wetlands. Following the premise that political economies are rooted in local traditions, research was focused at understanding social and political dynamics of a hinterland settlement that potentially maintained ties with nearby centers such as Blue Creek and Gran Cacao. Findings reveal patterns of household practices and growth, and provide information for the Terminal Classic and Early Postclassic in terms of extended occupation histories and what may have been an unstable social climate.

**Pagan, Jaime [16] see Rodriguez, Roberto**

**Pagan-Jimenez, Jaime R. (Instituto de Investigaciones Antropologicas, UNAM, Mexico) and Oliver, Jose R. (Institute of Archaeology, UCL, London)**

[16] *Starch Residues on Lithic Artefacts from Two Contrasting Contexts in Central Puerto Rico: Cueva de los Muertos and Vega Nelo Vargas*

Fifteen soil samples extracted from seven lithic artefacts of the archaeological sites "Cueva de los Muertos" (SR-1) and "Vega de Nelo Vargas" (Utu-27) in Utuado, Puerto Rico were analyzed for starch grain content. In order to formulate the first hypotheses about tuberous and seed plants use and their importance in the economical and political configuration of the Utuado archaeological area, we correlated the obtained archaeobotanical data with the synchronic/diachronic contexts of the studied sites. The preliminary data suggest that there were important endogenous plants that played a major role in the economical botany of the area, while other "higher yield" exogenous plants were produced and used, but apparently in a minor scale. The obtained information reveals that the phyto-cultural dynamics in central Puerto Rico are different

enough to widely accepted views on Caribbean archaeology and suggest the presence of different agricultural production scenarios co-existing in the intra- and inter-island spectra.

**Pahl Schaan, Denise [207]** *see Douglas, John*

**Paige, Peter [89]** *see Glassow, Michael*

**Pajuelo, Eva (University of Illinois, Urbana-Champaign) and Brown Enrile, Margaret (University of Illinois, Urbana-Champaign)**

[58] *In Recognition of Las Arqueólogas: Women and Research in Latin America*

Women's involvement in Latin American archaeology has yet to be adequately recognized by the field at large. We assess the role of female archaeologists in Latin America by highlighting their contributions, past and present, in the realms of fieldwork and theory. We emphasize the significance of their work with the purpose of situating their research within its historical context, the broader field of archaeology, and recognizing their place within Latin Americanist archaeology. We explore the diverse experiences of women archaeologists in Mesoamerica, South America and the Caribbean as part of a larger project toward considering the impact of gender in archaeological fieldwork.

**Palacios-Fest, Manuel R. (Statistical Research, Inc.), Wegener, Robert M. (Statistical Research, Inc.) and Ponte, Victor M. (University of Wisconsin)**

[185] *Identifying Human Occupation Horizons Using Phosphorous Analysis*

Phosphorous analysis is a popular chemical technique in archaeology and in this study we applied the Mehlich-2 method to infer shifts in the aboriginal use of Site CA-LAn-62, Los Angeles, California. To this end, we collected sediment from 36 profiles at 2-cm intervals and measured the phosphorous (PO<sub>4</sub>) content of 800 samples, which had PO<sub>4</sub> concentrations of 10-570 mg kg<sup>-1</sup> (ppm). Fluctuations in PO<sub>4</sub> content correlated closely with stone artifact and faunal material density across four strata, representing site occupations between 4590 BC and ~AD 1700. We discuss these results in relation to occupational intensity and regional chronology.

**Palka, Joel (University of Illinois-Chicago)**

[216] *Changes in Historic Lacandon Maya Economic and Social Life, 1775-1975*

The Lacandon Maya of the lowland rainforests of Peten, Guatemala, and Chiapas, Mexico, were affected by colonialism in different ways beginning in the Colonial Period until the twentieth century. At first the contact with outsiders was intermittent, then during the nineteenth century interaction increased following the migration of loggers, settlers, and priests into the lowlands. Trade was always important for the Lacandon, however, Western goods became greater necessities during the later Republican Period. The Lacandon were politically decentralized following the Spanish conquest, but some men achieved higher status and political power from their roles in the expanding trade.

**Palkovich, Ann M (Krasnow Institute at George Mason University)**

[82] *Calipers in the Field: Bioarchaeology and Skeletal Research*

Bioarchaeology has emerged as an important conceptual framework for studying past human dynamics. Many multidisciplinary archaeological projects of the 1960's and 70's involved researchers with various expertise directly in field excavations, among them specialists studying human remains. Among the first such skeletal biologists, Buikstra coined the term bioarchaeology to reflect the new questions being posed about the past, and novel analytical approaches engaged to answer them. I discuss the impact bioarchaeology has had on our understanding of past human groups, and the influence of this approach through Buikstra's work in archaeology.

**Palkovich, Ann [141]** *see Hardy, Jessica*

**Palumbo, Scott (University of Pittsburgh)**

[115] *Gendered Panopticons and the Tiwanaku Diaspora*

This paper examines the evidence for different types of activity areas within a few of the larger Tiwanaku sites along the southern coast of Peru. It will be argued that the practice of maize grinding was a distinctly gendered activity in Chen Chen style sites (~800-1000 AD), one that was regularly and exclusively located in plazas. It will be suggested that this association is linked to techniques of power and discipline critical to the functioning of the Chen Chen export economy.

**Panaifo, Mónica [90]** *see Rivas, Santiago*

**Panich, Lee (University of California, Berkeley) and Schneider, Tsim (University of California, Berkeley)**

[41] *Preliminary Investigations at Mission Santa Catalina, Baja California*

Mission Santa Catalina was located on the northeastern frontier of the Spanish mission system in Baja California, Mexico. The site was occupied from 1797 to 1840, and the area continues to be home to an indigenous community today. This poster will present the findings of preliminary archaeological investigations conducted at the site in the summer of 2005. Results of magnetometer testing, site mapping, surface collection, and limited test excavations will be discussed, as will the implications of these findings for future research at the site. In addition, the potential for community partnering and public interpretation will be considered.

**Pante, Michael (Rutgers University)**

[40] *A Taphonomic Investigation of Hominin Scavenging from Tree-stored Leopard Kills:*

*Identifying Early Access to Carcasses in the Archaeological Record*

One of the major developments in human evolution is the dietary shift towards meat eating that for the first time put our stone tool using ancestors (hominins) in competition with large carnivores. Therefore, it is important to understand the type and amount of carcass foods hominins were capable of exploiting and the nature of hominin and carnivore interactions as hominins encroached upon the larger carnivore guild. My research employs actualistic studies that simulate hominin scavenging from tree-stored leopard kills in developing criteria for recognizing the relative timing of hominin and carnivore carcass consumption in the archaeological record.

**Pantel, Agamemnon Gus (The Conservation Trust of Puerto Rico)**

[161] *30 Years of Archaeological Research by the Conservation Trust of Puerto Rico:*

*Approaches, Methods and Contributions*

The Conservation Trust of Puerto Rico, dedicated to the conservation of lands in the island of Puerto Rico, over the past thirty years has acquired properties with significant precolumbian and European colonial archaeological sites. This paper discusses three archaeological Trust Properties: a lighthouse reserve on the east coast, a coffee hacienda in the mountainous interior, and a sugar hacienda on the north coast. Originally acquired for their outstanding natural resources, these properties were equally significant in their archaeological and architectural heritage, and provide potential insight into the present and future integration of humans and their environment in tropical island countries.

**Pantel, Agamemnon [22]** see Goodman, Dean

**Pantel, Gus [22]** see Jones, Stephen

**Pappas, Christina (University of Kentucky)**

[213] *Textile-impressed Ceramics and the Caborn-Welborn in Kentucky*

Material culture is more than just objects, it is a reflection of the socio-political landscape of a given group. Preservation, however, is usually limited to durable items such as stone tools and pottery. Analyzing textile-impressed ceramics provides a glimpse into another aspect of material culture and a greater ability to address questions of social organization and differentiation. By examining the variation within such an assemblage, a group's social and hierarchical organization can be better understood. Using this methodology, a sample of the textile-impressed ceramics from the Caborn-Welborn Phase of the Slack Farm site in Kentucky was analyzed.

**Paradis, Louise I. (Universite de Montreal)**

[207] *The Origins of Monumentality in Ancient Guerrero, Mexico*

In Guerrero, monumentality first and only appears in Teopantecuanitlan around 1200 BC. It is closely associated in its shape and content with the Olmec art style and civilization. It is the only example at this early date of monumentality in Guerrero and the generalization of the process will have to wait until the end of the first millennium BC. An analysis of monumentality in this region of Mesoamerica, both from an historical and a developmental perspective, should contribute to document, if not understand, its origin and relation to the emergence of social complexity.

**Paredes, Blanca (Instituto Nacional de Antropología e Historia)**

[142] *The Present Situation of the Archaeological Patrimony in the Southwest of the Basin of Mexico*

In the present Mexico City is very complicated. There are many problems due to the accelerated

processes of excessive urban growth that affect the archaeological patrimony, such as serious problems of conservation, and others. In this presentation I will discuss based on my experience to the study of the protection of patrimony some alternatives to resolve this situation.

**Paredes, Rolando [4]** *see Speakman, Robert J.*

**Parker Pearson, Mike (University of Sheffield)**

[211] *Funerary Symbolism and Monumentality: Big Questions for Later Prehistory*

Chapman and Randsborg's introduction to *The Archaeology of Death* raised the spectre of funerary practices as potential misrepresentations of social relations, a theme subsequently elaborated on by archaeologists and anthropologists. Funerary rituals are just one of many forms of social expression, and deducing social organisation from mortuary evidence alone is problematic. Since *The Archaeology of Death*, such theoretical challenges have been accompanied by scientific advances and new questions, particularly about our species' material construction of death and the afterlife from 10,000 BC onwards. How have funerary elaboration and monumentality contributed to social transformations from Neolithic to nuclear humanity?

**Parkinson, William (Florida State University), Yerkes, Richard (Ohio State University) and Gyucha, Attila (Békés County Museum, Hungary)**

[153] *The Körös Regional Archaeological Project, 2005: Project Goals*

This paper discusses the goals of the Körös Regional Archaeological Project's investigations into Early Copper Age settlement organization in the Körös River Valley of southeastern Hungary. In addition to geomorphological investigations throughout the region, the project also has conducted excavations at the Early Copper Age (Tiszapolgár Culture) settlement sites of Körösladány-Bikeri and Vésztő-Bikeri.

**Parkinson, William [153]** *see Yerkes, Richard; [153]* *see Gyucha, Attila*

**Parks, Danielle [10]** *see Harper, Nathan K.*

**Parks, Maria (Texas A&M University)**

[77] *Prehistoric Activity Patterns from Furna do Estrago, Pernambuco, Brazil*

Muscle markers on bone may be used to infer patterns of activity, or muscle use, in prehistoric populations. For this study, I examined upper and lower long bones, clavicles, and scapulae of 24 adult skeletons from the archaeological site Furna do Estrago, Pernambuco, Brazil (2000-1500 BP). The inhabitants from this site in northeastern Brazil were foragers who relied on hunting small game and gathering wild plant foods. The muscle marker scores from Furna do Estrago will be compared to published data from other hunter-gatherer groups, so that a better understanding of past activity patterns in this region can be achieved.

**Parks, Rebekah (Arizona State University)**

[239] *Faunal Remains from the Malpaso Valley in Zacatecas, Mexico: Examining Evidence for Differential Consumption*

Between AD 500 and 900, La Quemada was the ceremonial, and possibly political, center of the Malpaso Valley. Previous research has found that some middens at La Quemada have different proportions of carnivores, artiodactyls, and lagomorphs than others; however the findings differ from what would be expected if consumption varied according to closeness to the monumental core. This study expands upon the previous research by including two previously unanalyzed sites, Los Pilarillos and El Potrerito, in order to further evaluate the expectation that high-status foods would be consumed more at La Quemada because of its social and political centrality.

**[140]** *see Ohnerson, Michael; [178]* *see Turkon, Paula*

**Parsons, Jeffrey (University of Michigan)**

[142] *Análisis en la Cuenca de México*

El sitio de El Tepalcate como ejemplo de datos perdidos en la Arqueología de la Cuenca de México. La desaparición de los recursos arqueológicos en la cuenca de México ha procedido rapidísimo durante los últimos años, sitios y paisajes enteros han sufrido destrucción. Esta ponencia trata de un sólo ejemplo de esta destrucción: El sitio El Tepalcate, cerca de Chimalhuacán en el sureste del ex-lago de Texcoco. El sitio recibió un poco de atención desde los años de 1940, pero todavía no se entiende mucho de su función en el sistema de asentamiento regional del Formativo Terminal (Fase Patlechique C.A. 200 a. de C.) Presento

una serie de posibilidades como una demostración de las preguntas que ya quedan sin respuesta definitiva.

[142] Discussant; [51] *Discussant*

**Parsons, Timothy (Florida State University)**

[153] *Elemental Interaction: Trade and Sourcing of Tiszapolgár Ceramics on the Great Hungarian Plain*

Research conducted over the last five years has indicated that little ceramic variation exists both stylistically and compositionally during the Early Copper Age on the Great Hungarian Plain. In order to expose trade relationships and human movement obscured by the uniform geology of the Carpathian Basin, trace-element analysis of ceramics from sites throughout the region was conducted. When applied in a wider study examining elemental sedimentary deposition in the Maros and Körös River basins, previously unrecognized social interaction may be identified. This paper outlines the goals of that project and discusses previous petrographic, stylistic, and compositional ceramic research.

**Passick, Todd (Arizona State University), Barton, Michael (Arizona State University) and Clark, Geoffrey (Arizona State University)**

[80] *Occupational Intensity and Prehistoric Land Degradation at Neolithic and Chalcolithic Sites in the Wadi Hasa Valley (West-Central Jordan)*

Analysis of community size and complexity, and labor investments in construction and stone tool production and maintenance at Neolithic and Chalcolithic sites the Wadi Hasa and its tributary drainages provides the basis for inferences about spatial and temporal variation in occupational intensity, mobility and sedentism. The geographical location of each site is entered into a GIS database and evidence for prehistoric land degradation in the immediate site environs is compiled to evaluate past human response to natural and anthropogenic landscape evolution.

**Passick, Todd [118]** *see Leslie, Shana*

**Pastrana, Alejandro (INAH) and Sterpone, Osvaldo (INAH)**

[200] *La Explotación, Talla y Uso de la Obsidiana de Teotihuacan en la Sierra de las Navajas*

El desarrollo inicial de la urbe teotihuacana, está relacionado con el aprovechamiento de la obsidiana gris-negra del yacimiento de Otumba. A partir de la fase Tlamimilolpa, se detectó el suministro y empleo mayoritario de la obsidiana verde-dorada de la Sierra de Las Navajas; esta obsidiana se utilizó ampliamente en actividades artesanales, militares y religiosas, como un bien inalienable del estado teotihuacano. Presentamos los primeros datos de la explotación y utilización de la obsidiana de Teotihuacan en La Sierra de Las Navajas, como parte de un complejo sistema de explotación, distribución y utilización.

**Pasuit, Jennifer [246]** *see Cortes Rincon, Marisol*

**Patel, Ajita (Harvard University)**

[215] *Occupational Histories, Settlement and Subsistence Systems in Western India: What the Bones Can Tell Us*

Various lines of investigation lead to information on chronologies, settlement and subsistence patterns within a cultural system. Faunal remains from Loteshwar in North Gujarat, Western India, were integral in providing an occupational history spanning about six millennia. Additionally, bones were valuable tools for investigating settlement and subsistence patterns in the region thereby leading to an understanding of issues relating to the beginnings of pastoralism, exploitation and domestication of animals, and seasonality of occupation. This has helped clarify the nature of varied cultural manifestations, including the "Microlithic" and "Chalcolithic," within the context of the archaeology of Northwestern South Asia.

**Patel, Nisha (University of Pittsburgh) and Kékegyi, Dorottya (Munkácsy Mihály Múzeum)**

[153] *Daub Analysis of Vésztő-Bikeri and Survey of Modern Mud Houses Around the Study Area*

This paper will discuss the results of the daub analysis from the Early Copper Age site of Vésztő-Bikeri on the Great Hungarian Plain of the results of a survey of mud houses conducted during the 2005 field season in and around the town of Vésztő. We will attempt to synthesize the results of the two studies and to propose new ways of looking at the study of prehistoric wattle-and-daub structures.

**Patel, Shankari (University of California, Riverside)**[29] *Cave Oracles*

Oracles figured significantly in the religious and political life of Mesoamerica. Politics consulted oracles at regional pilgrimage sites for prophecies regarding rulership and war. Individuals often sought oracles for pronouncements regarding healing or medicine. Research documents an intimate association between oracles and natural features such as caves and cenotes in Mesoamerica. Pilgrimage centers frequently housed oracles adjacent to prominent landmarks and oracular insights were often attributed to the power of such features. As portals to the supernatural and residences of specific deities, caves and cenotes occupied an important role in the construction and legitimization of oracles.

**Pateman, Michael (University of South Florida) and Tykot, Robert (University of South Florida)**[70] *Reconstructing the Diets of the Lucayan Taino People (Bahamas)*

Human skeletal remains from the underwater Sanctuary Blue Hole Site on Andros Island are under study in order to reconstruct the diets of Lucayan Taino people from The Bahamas. Bone collagen and bone apatite samples from sixteen individuals (including 10 males, 5 females, 1 unknown) were prepared and tested using stable isotope mass spectrometry to specifically investigate the importance of marine foods and possibly maize. The isotopic results will be integrated with other available data concerning dietary adaptations in The Bahamas and the Caribbean region.

**Patnaik, Rajeev [63]** see Chauhan, Parth; **[63]** see Blickstein, J.I.B.

**Patten, Bob (Stone Dagger Publications)**[226] *Process Controls: The Power Behind the Throne of Typology*

Typology derives its power to distinguish between work of various craft industries from the consistent appearance of certain features of artifacts. Standardization results from controls imposed on culturally-imbedded process steps, and offers important clues to priorities, decisions, behavior, and even lineage. Examples of flintknapping process controls illuminate their potential utility in deciphering a craftsman's motivation.

**Patterson, Thomas C. (University of California, Riverside)**[82] *The Praxis of Archaeology: Jane Buikstra's Bioarchaeology*

Jane Buikstra's bioarchaeological research combines a textured appreciation of the interconnections between method and theory. She constructs multiple working hypotheses and tests their reliability against diverse kinds of evidence. She also brings a biocultural understanding to issues of historical change resulting from the interconnections of dietary change, social organization, belief systems, and demography during the development of horticulture. This paper explores the theoretical underpinnings of this biocultural understanding, how it crosscuts traditional subfields, and its implications for the practice of anthropology.

**Pauketat, Timothy (University of Illinois)**[186] *Power and Identity Personified: The Case of the Mississippian Ridge-Top Mounds*

Spotty details from several of the dozen known ridge-top mortuary mounds of greater Cahokia suggest that theatrical termination and inauguration rites of ruling families involved an imagined legendary history, a re-invented creation story, and redefined notions of personhood and corporate identity. Subsequent Mississippian identities were personifications of supernatural forces contingent on these earlier political-cultural movements of power/ identity theater. Hence definitions of individuals, social persons, community, and cultural identities were at play --which is the point -- and cannot be reduced to a priori normative categories.

[54] *Discussant*

**Pauls, Elizabeth (State Archaeologist of Iowa) [88]** *Discussant*

**Pavao-Zuckerman, Barnet (University of Arizona)**[171] *Native American Resistance and the Slaughter of Livestock: Domesticated Animals as Symbols of Colonization*

Efforts by colonial entities to effect change in indigenous societies were met by active and passive resistance. Cross-culturally, livestock play important symbolic roles in active resistance

to European and Euro-American colonization efforts. Among the southeastern Creeks, and the southwestern O'odham, livestock (even animals owned by Native Americans) were slaughtered in resistance to efforts aimed at altering indigenous lifeways. The Creeks specifically targeted livestock as a symbol of the American "civilization" program (Braund 1993:187). The role of livestock in active, and oftentimes violent, resistance to colonialism indicates that domesticated animals were important as symbolic entities above and beyond economy and subsistence. [2] see Grinnell, Calvin

**Paxton, Merideth (University of New Mexico) [37] Discussant**

**Paz, Jose Luis [4] see Alconini, Sonia**

**Peabody, Joshua (USDA Forest Service) and Gilmour, Daniel (USDA Forest Service)**  
[100] *Prehistoric Personal Gear: Analysis of a Complete Toolkit of a Highly Mobile Hunter-Gatherer*

We present the findings of a detailed analysis of flaked stone tools from a highly mobile hunter-gatherer toolkit. Recovered from a high elevation artifact cache in the North Central Sierra Nevada, California, the find undoubtedly represents the complete stone toolkit of an individual, consisting of over 30 formed tools and usable flakes, manufactured from a uniform raw material, and of similar size and dimension. The geographic location of the cache combined with its isolation from other cultural material represents a unique archaeological occurrence affording an opportunity to contrast competing theoretical models of hunter-gatherer mobility and toolkit configuration against empirical evidence.

**Peabody, Joshua [239] see Gifford-Gonzalez, Diane**

**Peacock, Evan (Mississippi State University), Mistak, Sarah (Mississippi State University), Jones, Robert (Mississippi Museum of Natural Science) and Hartfield, Paul (U.S. Fish and Wildlife Service)**

[6] *Freshwater Mussel Biogeography: Evidence from Archaeological Shell*

Freshwater mussel ranges have been greatly altered by erosion, pollution, damming and channelization. The magnitude of such changes is poorly understood. Archaeological shell can be used to establish baseline data useful for conservation and habitat restoration. A study funded by the U.S. Fish and Wildlife Service via the Mississippi Department of Wildlife, Fisheries, and Parks is underway in Mississippi, the goal of which is to analyze archaeological shell remains from across the state. Data from the Tombigbee, Mississippi, and Pascagoula river drainages show significant differences in diversity, abundance, and in some cases species dominance between archaeological materials and modern faunas.

**Pearce, Robert (University of Western Ontario, Museum of Ontario Archaeology)**

[241] *Turtles from Turtle Island: An Archaeological Perspective from Iroquoia*

Iroquoians believe their world, Turtle Island, was created on the back of the mythological Turtle. Archaeologically, there is abundant evidence throughout Iroquoia that Turtle was highly symbolic. Complete turtles were modified into rattles but turtle shells and bones were also utilized in a variety of symbolic ways and Turtle was graphically depicted in several media. This paper explores the symbolic treatments and uses of Turtle in eastern North America which date back to the Archaic period and evolved into the mythologies of linguistically and culturally diverse groups including the Iroquoians, Algonkians (Anishinaabeg) and Sioux.

**Pearl, Frederic [150] see Dickson, D. Bruce; [204] see Johnson, Phillip**

**Pearsall, Deborah M. (University of Missouri) and Stahl, Peter W. (Binghamton University)**

[178] *Discovering the Anthropogenic Footprint of Vegetational Clearance: Insights from Microvertebrates, Macroremains, and Phytoliths from the Pechichal site, Ecuador*

Excellent preservation and systematic recovery of biological remains from a large pit at the Pechichal site provide insights into vegetational clearance. Microvertebrates, animals whose live weights do not exceed 1 kg, are important for paleoecological inferences, as their narrow niche requirements and restricted ranges make them sensitive to local habitats. Phytoliths deposited in alluvial settings record regional vegetation and in situ plant deposition. Charred macroremains document deliberate or accidental exposure of plant tissues to fire. Integration of these data permits identification of vegetational clearance and subsistence activities, and reveals that the pit near the edge of a modified forest fragment.



**Pearson, Jessica [215]** *see Hongo, Hitomi*

**Pecci, Alessandra (Università di Siena)**

[185] *Food Residues on Archaeological Floors of a Medieval Castle in Italy: An Interpretation of Room Function*

Food preparation and consumption activities characterize by the use of substances, containing proteins, phosphates, fats, and oils. Using chemical analyses, it is possible to identify enrichment patterns on floors where these activities took place. At Donoratico, in Central Italy, results from chemical analyses determined areas of food production, preparation, and storage. Specifically, the use of GC-MS increased the potential to identify the substances used in these activities. This study emphasises that the application of chemical analyses in archaeology is essential to the construction of hypotheses for the interpretation of room function and activities.

[185] *see Barba, Luis*

**Peebles, Christopher (Indiana University ) [180]** *Discussant*

**Peeples, Matthew (Arizona State University), Schmich, Steven (Arizona State University) and Barton, Michael (Arizona State University)**

[107] *Subsistence and Long-term Landuse along the Middle Chevelon Creek Drainage, AZ*

The southwestern margin of the Colorado Plateau in northeastern Arizona provides an excellent context in which to study the human use of landscapes through the transition from foraging to agricultural subsistence economies. A high-resolution, patch-based survey in the middle Chevelon Creek area will be used to develop and test alternative models for the changing socioecology of subsistence agriculture, including varying degrees of shifting agriculture, the intensity of anthropogenic landscape modification, and social responses to human and natural environmental change. These models are further tested against a lower-resolution, but more extensive dataset from the Chevelon Archaeological Research Project.

**Peiser, Benny (Liverpool John Moores University)**

[50] *From Genocide to Ecocide: The Rape of Rapa Nui*

The theory of Easter Island's "ecological suicide" has become a popular notion. According to this premise, the indigenous population destroyed their forest and drove their animals to extinction. As a result, its society collapsed, descending into civil war, cannibalism and self-destruction. While the theory of "ecocide" has become almost paradigmatic, a dark secret hangs over the premise of Easter Island's self-destruction: an actual genocide terminated Rapa Nui's indigenous populace and its culture. This paper describes the foundations of the theory of "ecocide" and explains why it does not hold up to scientific scrutiny.

**Pellecer Alecio, Mónica (Universidad de San Carlos, Guatemala)**

[48] *The Discoveries of Jabali: A Triadic Group at San Bartolo, Petén, Guatemala*

The 2004-2005 field season at Jabali has revealed important discoveries that demonstrate ritual connotations related to the religious and political ideology of the governing elite during the Late Preclassic, contributing in this way to the knowledge and reconstruction of its history inside the social context of San Bartolo. Among the principal discoveries is a ritual deposit found in the center of the courtyard above an intrusive offering. To the west was located another offering and a tomb where there was interred an individual whose offerings and personal objects indicate he was someone of upper class social rank at San Bartolo.

**Pemberton, Kevin [103]** *see Wolff, Christopher*

**Pentney, Sandra (Stantec), Yost, Lynne (NMG Geotechnical) and Archer, Gavin (Stantec)**

[44] *Tomato Springs: Geomorphology and Precontact Inhabitation. A Multidisciplinary Look Into A Series of Deeply Buried Sites in Orange County, California*

A series of deeply buried archaeological sites discovered while monitoring rough grade operations in Orange County, California has led to a co-operative research effort between archaeologists and geotechnical engineers involved with the development. The data collected from the sites is expected to not only yield pre-contact cultural information, but also to provide data on the rate of uplift for the Tustin Foothills and the rate of alluvial deposit on the Tustin Plain.

**Perales, Manuel [168]** *see Nelson, Kit*

**Peraza, Carlos [119]** *see Baquedano, Elizabeth*

**Peraza Lope, Carlos [132]** *see Serafin, Stanley*; **[177]** *see Brown, Clifford T.*; **[177]** *see Masson, Marilyn A.*; **[49]** *see Hare, Timothy*

**Peregrine, Peter (Lawrence University)**

**[240]** *Ceramic Styles as Cultural Cognitive Maps*

In 1961 J.L. Fisher demonstrated through a cross-cultural analysis that art styles correlated with social hierarchy and post-marital residence patterns. He suggested that with further work these correlations might be developed into useful predictors variation in social hierarchy and postmarital residence in archaeologically-known societies. This paper is a step in that direction. It replicates Fisher's original study using ceramic data, and proposes several ways archaeological ceramics might be used to predict social characteristics of extinct societies.

**Pereira, Carlos [42]** *see Wright, Alice*

**Pereira, Edithe (Emilio Goeldi Museum), Luiz, Jose Gouvea (Federal University of Pará), Senna, Cristina (Emilio Goeldi Museum), Santos, Seidel (Emilio Goeldi Museum) and Carvalho, Cláudia (National Museum of Rio de Janeiro)**

**[77]** *Domingos - A Tupiguarani Tradition Site on Southeast Amazônia*

Located in the southeastern region of the Amazon, the Domingos site is an ancient indigenous village related to the Tupiguarani ceramic tradition. The excavations at the site, performed in conjunction with a series of geophysical studies, facilitated the removal of entire vessels, three of which correspond to funerary urns. Specific ongoing studies concerning skeletal remains, ceramic micro-residues, pedology and palynology are being done in order to obtain data for the characterization of different activity areas within this site. Radiocarbon dates situate the occupation of this site between 1010±40 and 580±50 BP.

**Pereira, Grégory (CNRS)**

**[193]** *The Afterlife Destiny of Gender and the Emergence of the Tarascan State*

The comparison between Epiclassic and Postclassic cemeteries from Michoacan highland suggests that the emergence of the Tarascan state coincides with important changes in mortuary practices. In this paper we will focus on the temporal variation in funerary treatment between male and female. Our initial aim will be to characterize and follow the chronological development of certain funerary "representations" linked to both sexes. We will then examine the possible ideological and social implications of the observed changes.

**Pereira, Karen (Universidad del Valle de Guatemala)**

**[9]** *The Hearth of Escuintla: New Evidence of Rim-head Vessels as Censers*

Three head censers, more commonly known as "rim-head vessels," appeared at Kaminaljuyu since Preclassic times. Along the Classic, its distribution extended north to the Valley of Mexico and the Gulf Coast, and to Honduras in the south. Three head censers are found in Escuintla during the Late Classic and were distributed in primary centers, like Bilbao and El Baúl, although, they can be found also in smaller sites all over the region. The investigation centered in a pottery workshop that manufactured the censers. This paper will present information on their function and meaning.

**Peres, Tanya M. (Middle Tennessee State University), VanDerwarker, Amber M. (Muhlenberg College) and Pool, Chris A. (University of Kentucky)**

**[178]** *The Farmed and the Hunted: Integrating Floral and Faunal Data From Tres Zapotes, Veracruz*

Our paper examines hunting and farming practices at Formative-period Tres Zapotes in southern Veracruz, Mexico, through the dual consideration of archaeofaunal and archaeobotanical data. In keeping with the topic of the symposium, we integrate these data using a variety of different techniques, including ubiquity measures, comparative ratios, diversity and equitability, and simple correlations. These integrated data are then interpreted based on their temporal (Late vs. Terminal Formative), spatial (public vs. residential areas), and social contexts (elite vs. commoner). Ultimately, we argue that a rigorous integration of animal and plant data allows for a more holistic vision of ancient foodways.

**Perez, Gregorio (Centro Regional de Investigaciones Arqueologicas, Copan)**[237] *Tomb 1, Group 11K-6, and the Architecture of Royal Tombs at Copan*

Tomb 1 at Group 11K-6 is a three meter high vaulted chamber that was accessed via a masonry entry chute from the central room of a temple, Structure 11K-28. Until its discovery, massive tomb constructions at Copan had only been found in the Acropolis. Tomb 1, however, is located more than 400 meters southwest of the West Court, at the very limits of the National Archaeological Park. This paper, presented in Spanish, compares and contrasts the architecture of monumental tombs at Copan.

**Pérez Rodríguez, Verónica (Northern Arizona University)**[220] *Landscapes of Intensification: Current Research and Future Directions*

As an introduction to the session "Landscapes of Intensification," this paper will review and comment on past and present research on the subject. The discussion will focus on current theoretical and methodological approaches and will review world areas of study, as well as locations that still require archaeological attention. Finally, it will consider the methodological and theoretical directions that may enrich this field of study in the future.

**Perlès, Catherine (Universite Paris X)**[19] *The Levant, Anatolia, Greece and the Balkans: Re-reading the Evidence for Demic Diffusion of the Neolithic*

The majority of archaeological models that postulate demic diffusion of the Neolithic locate the origins of the Greek and Balkanic Neolithic in Anatolia. A revision of the archaeological evidence based on an approach akin to cladistic analysis leads me to suggest, to the contrary, that two distinct processes were involved. One would have led from the Levant to Greece through coastal routes, while a later one would have led from Anatolia to Bulgaria through inland routes. This new model not only has archaeological implications, but also direct linguistic and genetic implications.

[83] *Discussant***Perlstein Pollard, Helen (Michigan State University)**[193] *A Model of the Emergence of the Tarascan State*

By AD 1350 central-west Mexico was incorporated into the Tarascan state. This irrechequa tzintzuntzani (kingdom of Tzintzuntzan) has been known primarily from sixteenth century documents. With three decades of archaeological, ecological, and ethnohistoric research it is now possible to propose a model of the emergence of the first archaic state in Michoacan. Critical issues to be addressed include (1) why state formation occurred (and why this form), (2) why even secondary state formation was "delayed" for more than a millennium, (3) why it occurred in the Lake Patzcuaro Basin, and (4) the role of purepecha ethnicity in the process.

**Peros, Matthew (University of Ottawa), Graham, Elizabeth (University College London) and Davis, Tony (University of Toronto)**[70] *Late Holocene Relative Sea Level History of North Central Cuba: Implications for Taino Archaeology*

The Los Buchillones Taino site (ca. AD 1220 to 1640) is one of the best preserved prehistoric settlements in the Caribbean. Archaeological and geoarchaeological evidence suggests that at least some of the site was built over water – a unique settlement strategy for coastal Taino villages. Here we present new evidence, in the form of a sea level curve and foraminiferal data, which provides further support for the water-dwelling hypothesis. We also show that the location of the site was likely submerged when the Taino first settled the area. Our work provides important information about Taino site selection processes.

**Perry, Elizabeth (University of Arizona/SWCA)**[58] *Labors of the Gendered Body: Present Influences on the Interpretation of the Prehistoric Workplace*

Reconstruction of the conditions of gendered labor and the exploitation of women in prehistoric communities is stymied by a deeply embedded sense of the material "reality" of gender difference in the modern workplace. This paper describes the embodied experience of women in one prehistoric workplace – a 14th century Pueblo village – drawing on bioarchaeological studies of the skeletal body. The intellectual challenges presented by modern relations of labor, gender and power that influence interpretation of these data are explored, with particular attention to the paradoxical task of women laboring in the present to explain the labor of women in the past.

**Perry, Jennifer (Pomona College)**[36] *Middle to Late Holocene Transitions on Santa Cruz Island, California*

It has been increasingly recognized that to understand the sedentary lifestyles and maritime-oriented economy of the historic Chumash of the Santa Barbara Channel it is necessary to identify their environmental and socioeconomic roots in the Middle to Late Holocene transition (4000-2000 BP). Using settlement and subsistence data from Santa Cruz Island, I discuss some of the significant shifts that characterize this hitherto poorly documented time frame on the Channel Islands. I contrast seasonal terrestrial and marine foraging in the Middle Holocene with Late Holocene resource intensification, and consider potential explanations for how this influenced subsequent socioeconomic transformations.

**Perry, Linda (Smithsonian Institution)**[109] *Early Maize Agriculture and Interzonal Interaction in Southern Peru*

This paper reports on the analyses of plant microremains from a late preceramic house in the highland southern Peruvian site of Waynuna. Results from plant microfossil analyses extend the record of maize by at least a millennium in the southern Andes, demonstrate on-site processing of maize into flour, and provide direct evidence for the deliberate movement of plant foods by humans from the tropical forest to the highlands. The archaeobotanical data indicate that a combination of microfossil analyses, both starches and phytoliths, will be key in gaining an understanding of ancient plant use and migration in this region.

**Perry, Megan (East Carolina University), Coleman, Drew (University of North Carolina at Chapel Hill) and al-Shiyab, Abdel Halim (Yarmouk University)**[82] *Damnatio ad Metal: Investigating the Origin of Phaeno Mining Camp Prisoners Using Radiogenic Strontium Isotope Analysis*

Ancient written sources and bioarchaeological analyses have elucidated the cheerless life lead by criminals, slaves, and Christians from 4th century AD. Palestine and Egypt sentenced to the mines of Phaeno in modern Jordan. Few indicators, however, point to the origin of the Faynan prisoners, knowledge that may elucidate the geographic pattern of Christian persecution during this period. Radiogenic Sr isotopes from 12 human dental samples were used to discern where these individuals spent their childhood. Over half of those tested were non-local, suggesting significant expenditure of imperial resources to transport prisoners from around the region.

**Perry, Megan (East Carolina University) [11] Discussant; [10] see Fairchild, Joshua****Persons, Brooke (University of Alabama)**[70] *The Archaic-Agricultural Frontier in Western Cuba*

Ethnohistoric accounts suggest that Archaic groups existed in Western Cuba until European contact and the archaeological record supports that agricultural peoples never expanded into Western Cuba. If both are true, a frontier area may have existed between the Archaic groups and Ceramic agriculturalists in the western provinces. This paper examines the evidence of whether such a frontier area existed, considering the relative time depth of interaction as well as the feasibility of whether the frontier extended into Contact. Empirical analysis of the distribution of sites in the region provides insight into the nature of the Archaic-Agricultural Frontier in Western Cuba.

**Pestle, William (Field Museum of Natural History)**[145] *Bone Chemistry and Paleodiet at Tibes*

The prehistoric inhabitants of Puerto Rico had access to an extremely diverse array of potential foodstuffs, including terrestrial flora and fauna, riverine animals, and marine fare as varied as mollusks and manatees. A pilot study of stable carbon and nitrogen isotopes in bone apatite and collagen from Tibes and three other pre-Hispanic Puerto Rican sites has already begun to provide valuable insights into the nature of prehistoric subsistence on the island. The results of analysis of both the protein and energy portions of the prehistoric diet will be presented, as will the prospects for future research in this vein.

**Pestle, Will [141] see Laffoon, Jason****Peter, Duane (Geo-Marine, Inc.) and Wurtz, Michelle (Geo-Marine, Inc.)**[62] *The Fort Hood 3D Database: An Experiment in Data Sharing and Public Outreach*

Fort Hood, Texas and ERDC-CERL sponsored this project to determine if three-dimensional laser scanning has the potential to alleviate a persistent problem in archaeology--the unavailability of artifacts to both researchers and the public. The project demonstrates that

artifacts that must be curated, stored, or repatriated can be scanned and used for digital comparative collections or educational material. The Fort Hood 3D Database provides a digital database that improves the business process of curation so that research, Native American consultation efforts, and public education objectives are facilitated.

**Peters, Ann H. (Cornell University), Tomasto, Elsa (MNAHP, Lima, Peru), Thays, Carmen (MNAHP, Lima, Peru) and Aponete, Delia (UNMSM, Lima, Peru)**

[21] *Gender, Leadership and Ancestry in Paracas Necropolis*

The spectacular burials of elders in the Paracas Necropolis have been generalized as male, since their original publication by Dr. Julio C. Tello. Both burial goods and imagery emphasize weapon-bearing figures combining human features with predators of land, sea and air. However, Tello's assistant Mejia Xesspe later questioned whether sexual identity of all individuals had been established. Eighty years after the National Museum began research at the Paracas site, restudy of archival and physical data has led to surprising new information about the Paracas Necropolis population and the sexual characteristics and gender identities of some of the most elaborate burials.

**Petersen, James B. [52]** see *Glascok, Michael D.*; [84] see *Crock, John G.*; [96] see *Cowie, Ellen R.*

**Petersen, Jim [202]** see *Bartone, Robert*

**Peterson, Christian (University of Pittsburgh) and Shelach, Gideon (Hebrew University)**

[7] *The Evolution of Early Yangshao Period Village Organization in the Middle Reaches of Northern China's Yellow River Valley*

A settled agricultural way of life was firmly established in the middle reaches of the Yellow River Valley region of northern China by about 7000 BCE. These early farmers lived in small, widely scattered settlements of a few relatively undifferentiated households. By 5000 BCE, these communities had become substantially larger, more numerous, and more densely populated. The regional distribution, spatial organization, and artifactual assemblages of these Early Yangshao villages suggest an increased intensity of inter-household and inter-settlement interaction, and a fundamental reorganization of previous social and economic structures—changes that presage the later development of social hierarchies in the region.

**Peterson, Cindy [250]** see *Hedden, John*

**Peterson, Marcia (Washington State University) and Goodman Elgar, Melissa (Washington State University)**

[77] *Site Formation at Kumi Kipa: Geoarchaeology of a Formative Site in the Lake Titicaca Basin, Bolivia*

The Formative site of Kumi Kipa is located on the southern shore of Lake Titicaca, Bolivia where the Taraco Archaeological Project (TAP), supported by NSF, is investigating the interaction of Chiripa and Tiwanaku cultures. TAP initially excavated Kumi Kipa in 2004. In 2005, we excavated natural pits to compare to samples collected from the excavations. The goal of the present research is to identify the effects of site formation processes, especially bioturbation and fluctuating lake levels, on site preservation and artifact distribution. We present results of physical and chemical analyses as well as soil micromorphology analyses from intact block samples.

**Peterson, Polly (Boston University)**

[29] *Size Matters: Elite Appropriation of an Ancient Maya Regional Pilgrimage Center*

Evidence of ancient cave use in the Sibun Valley generally consists of commoner assemblages deposited by residents in this peripheral area of central Belize. The monumental construction in Actun Chanona, the largest cave in the valley, marks the site as an exception suggesting that this sacred landmark was appropriated by the elite of the nearby Hershey site, the dominant regional center in the valley. The scale of modification ranks Actun Chanona with Naj Tunich, Loltun and the Cueva de las Pinturas and suggests that the cave may have functioned as a regional pilgrimage center.

**Peuramaki-Brown, Meaghan (University of Calgary)**

[238] *Socio-Political Identity as Ethnicity in the Middle and Late Classic Maya Lowlands*

Rather than simple "culture-history" descriptions, studies of ethnicity are now seeking to

understand this form of identity creation as acts of agency within the past and as dynamic entities emerging in the face of social, political, and/or economic stress. The following paper will examine the possible creation of socio-political/ethnic identities, during the political turmoil of the Middle and Late Classic in the Maya Lowlands. Sources will be drawn primarily from iconographic and epigraphic information, however, archaeological evidence will also be incorporated.

**Phillips, Erin (University of Alabama)**

[155] *Status and Moundville's Mortuary Record: A Study of Three Artifact Types*

This study examines aspects of status as seen in the mortuary record of a complex chiefdom-type society. Stone palettes, tabular stone pendants, and copper gorgets are finely crafted goods found at Moundville, often in conjunction with burials. All three are believed to be locally produced products. In this paper burials that contain these artifact types are compared with contemporaneous Moundville II & III burials to determine whether they serve as markers for distinct statuses. Of special interest are the age and sex of the individual, location of the burial within Moundville, and possible relationships to other associated artifacts.

**Phillips, Scott (SWCA Environmental Consultants) and Slessman, Scott (SWCA Environmental Consultants)**

[250] *Ethnographic, Historic, and Archaeological Investigations of the Pumpkin Buttes Rural Historic Landscape on the Northern Plains of Wyoming*

Pumpkin Buttes are a landmark on Wyoming's Powder River Basin landscape. Our ethnographic, historic, and archaeological exploration investigates the significance of Pumpkin Buttes as an enduring feature on the landscape, around which meaningful human activity revolved through eras and ages. Activity around the buttes is represented by Native American migrations, camping, and buffalo hunting, replaced in time and through violent conflict by Euro-American exploration and stagecoach routes, homesteading, and cattle ranching. This is the study of a cultural landscape forming around a geographic landmark, and what that landmark meant to different cultures and peoples as they changed with the landscape.

**Phillips, Shaun (Michigan State University)**

[125] *What to Say When You Can't Say Much: Predictive Modeling without Site Data in Grand Traverse County, Michigan*

This paper discusses a deductive GIS-based predictive model for Late Archaic through Late Woodland site locations in Grand Traverse County, Michigan. This model considers Great Lakes water level fluctuations, as well as isostatic rebound and the combined potential effect on resource availability in order to better understand changes in the spatial configuration of archaeological sites through time. Pollen core data was used to determine the applicable temporal range for this model. Rather than using the model as a land management tool, this paper argues that similar models should be used in research hypotheses generation and testing.

**Picha, Paul [78] see Ahler, Stanley**

**Piechota, Dennis (UMass Boston/Fiske Center)**

[186] *Conservator as Archaeologist: An Experiment in Micro-excavation*

If an archaeological conservator were to strictly follow his standards of practice to develop an excavation strategy, would his professional identity influence his approach to archaeology? This question led me to take intact soil blocks from the field and to re-define laboratory micro-excavation as a form of "treatment." Being freed of the time constraints of the field season I was able to incorporate diverse examination methods into the excavation process. As a result I now see such analysis by micro-excavation as an archaeological form of exegesis: free-form, wide-ranging textual analysis from a sample of that text.

**Piehl, Jennifer (Tulane University)**

[14] *Diet and Social Identity in the Belize River Valley*

Stable isotope analysis of a sample of human remains from five sites in the Belize River valley characterizes paleodiet in this region during the Late Classic period. Comparison of dietary components and examination of dietary variability among and within sites, and with respect to sociocultural factors such as mortuary context, architectural affiliation, and sex, are used to examine the role of dietary differentiation in the expression of differential social identity in the Belize Valley.

**Pike-Tay, Anne (Vassar College), Cosgrove, Richard (LaTrobe University, Australia), Garvey, Jillian (LaTrobe University, Australia) and Privat, Karen (University of Sydney)**  
 [239] *Wallabies and Wombats: New Zooarchaeological Research on Late Pleistocene Tasmania*

The Pleistocene settlement of Tasmania (35kya to 13kya) represents the most southerly extent of the spread of anatomically modern humans out of Africa. Our goal is to reconstruct economic organization, land use and prey selection before, during, and after the LGM in Tasmania. Results will inform on whether Aboriginal subsistence behavior was strategic and, if the cave sites in the uplands and lowlands were integrated into patterns of seasonal land use. Initial results from taphonomy, seasonality, and stable isotope studies of archaeofaunal assemblages from five southwest Tasmanian sites are reported.

**Pimentel, Victor (Université de Montréal)**

[212] *Living in the Capital: The Mochica Urban Household*

Excavations in the urban sector of the Huacas de Moche site in the last ten years have significantly increased our knowledge of this city, which was composed of streets, plazas, platforms, and multifunctional compounds. These compounds correspond to the residential areas and specialized workshops. Based on analysis of archaeological data collected in the residential contexts, I will address Mochica households at the urban scale and discuss the importance of the urban class in the social, economic, and political spheres of this city, considered to be the capital of the Southern Mochica State between the 5th and 8th centuries AD.

**Pino, Michelle (Kenyon College)**

[76] *Experimental Investigations and Ethnographic Perspectives: Implications for Root and Tuber Processing by Neanderthals*

Faunal and paleoenvironmental evidence from Neanderthal sites often leads to comparisons with heavily meat-dependent high latitude foragers, while plant foods are often disregarded. Microscopic use-residues on Middle Paleolithic stone tools can reveal otherwise invisible plant foods, but their further identification is hampered by a lack of modern comparative materials. Experimental flint tools were used to process edible wild plants typical of high latitude environments. Examination of these tools using reflected light microscopy (100-500x) provides a catalogue for more specific identification of plant residues in general, and helps elucidate the role of plants in Neanderthal subsistence.

**Piro, Jennifer (New York University), Manaseryan, Nina (Institute of Zoology, Yerevan, Armenia) and Vila, Emmanuelle (CNRS)**

[28] *The Origin and Development of Cattle Domestication in the Armenian Highlands from the VI-III Millennium B.C.*

The paper will introduce the preliminary results of an ongoing morphological and genetic analysis of cattle remains from archaeological sites in Armenia and its adjoining highland regions. The paper will focus on the comparative-morphological analysis of horns, dentition, and post-cranial skeletal elements from several archaeological sites spanning the VI-III millennium BC across Armenia and also the mid-IV to III millennium BC cultural layers at Sos Höyük in northeastern Anatolia. Using archaeological evidence in tandem with the faunal data, the paper will also explore the development of cattle husbandry over time.

**Pitblado, Bonnie (Utah State University)**

[58] *On Women and Academic Archaeology*

My stints as an anthropology undergraduate and an archaeology graduate student were positive and unremarkable in terms of gender issues. At some point, I internalized the belief that academia is an inherently welcoming place for women archaeologists, and I assumed that the hardest part of an academic career would be simply getting a job. My maiden voyage as an assistant professor at a small college revealed some problems with my belief system. I want to share my experiences with my colleagues, and I want to see gender-challenged anthropology programs evolve to become more like my current nurturing one.

[105] see Grim, Todd; [217] Discussant; [217] see Porter, Jason

**Pitezel, Todd A. (University of Arizona)**

[27] *Insights into the Casas Grandes Ritual Landscape from Cerro de Moctezuma, Chihuahua, Mexico*

Between AD 1200-1450 Cerro de Moctezuma was the location of a substantial settlement known today as El Pueblito, the only recorded instance of habitation on a hill during the Casas Grandes

Medio period. Cerro de Moctezuma also contains the largest and most elaborate recorded summit feature in the region. Characteristics from preliminary mapping suggest that Cerro de Moctezuma was a ritually charged component in the Casas Grandes settlement system around the preeminent center of Paquimé. Initial results from the first subsurface investigation at Cerro de Moctezuma are presented and evaluated within a landscape theoretical framework.

**Plank, Shannon (Boston University) and Maca, Allan (Colgate University)**

[237] *PAPAC and the Study of Copan's Urban Renovation under Yax Pasaj*

Excavations at Group 11K-6, El Bosque, were designed to evaluate the authors' independently-developed revisions of previous understandings of the politics and spatial organization of late dynastic Copan. Evidence from the 2005 PAPAC excavations supports the hypothesis that Yax Pasaj responded to the instability of the late eighth century with a city-wide program of massive architectural and cosmological renewal. This centrally-directed endeavor entailed re-establishing the ritual boundaries by renovating critical architectural nodes. These data challenge notions of Copan as ceremonial center and argue for the protection and conservation beyond the Principal Group and National Park.

**Plank, Shannon [237] see Maca, Allan; [210] Discussant**

**Plaskey, Bret [105] see Bradford, Ileana**

**Plaza, David (University of New Mexico) and Angel, Mona (University of New Mexico)**

[148] *The Student Perspective on Geospatial Education*

This paper describes a student perspective on integrating geospatial perspectives in archaeological courses. The University of New Mexico's undergraduate course, Geospatial Analysis in Archaeology, serves as the case study. This course offered experiential learning via a project-based approach that specifically focused on spatial thinking and spatial analytical tools and real-world applications. In addition, extra curricular events provided interaction with professional archaeologists to discuss the value of geospatial analysis. We have continued our efforts on the projects begun in this course as independent studies; the results of which, we will present.

**Pleger, Thomas (University of Wisconsin-Fox Valley)**

[229] *The Old Copper Industry in Wisconsin*

Great Lakes Archaic Indians were the first to experiment with metal fabrication technologies in North America. Nearly pure copper was hot and cold hammered to produce a variety of projectile points, knives, woodworking tools, all purpose tools, fishing gear, and jewelry. The author provides an up-to-date summary of what is known about the Old Copper Industry in Wisconsin. Cultural development of Archaic copper-using cultures is discussed in relation to environmental, social, and technological change.

**Plog, Stephen (University of Virginia ) [180] Discussant**

**Plourde, Aimee (CEACB, University College London)**

[195] *The Origins of Prestige Goods as Costly (Honest) Signals of Skill and Knowledge*

The correlation between prestige goods and other indicators of sociopolitical hierarchy is typically assumed to be due to admiration and desire for such goods, as is commonly experienced by people in contemporary societies. Yet this desire in itself requires explanation, given that prestige goods appear, at different times and places, fairly late in prehistory. Following Henrich and Gil-White's "information goods" theory, I suggest that prestige goods initially evolved to function as honest signals of skill and expertise, and that the psychological mechanisms underlying this function link them to later roles in signaling leadership qualities, social status ranking, and group strength.

**Pluciennik, Mark (University of Leicester)**

[19] *Clash of Cultures?*

This paper examines the ways in which genetic data have been used to interpret the transition to agriculture in Europe over the past two decades, and the relationship of these interpretations to more strictly archaeological explanations. It is suggested that until recently those working within different fields have been using not only different date sets and methodologies, but also addressing subtly different questions. By considering the scale and nature of explanation sought, it is hoped to identify areas of potential fruitful collaboration — and those topics where genetic data are unlikely to be able to offer any resolution.



**Pluckhahn, Thomas (University of Oklahoma)**

[7] *The Sacred and the Secular Revisited: The Essential Tensions of Early Village Society in the Southeastern U.S.*

Kolomoki is the earliest site in the Southeast with good evidence for a large, sedentary village. In his work at the site, Sears presented a dichotomy between "sacred" and "secular" ceramic assemblages, a distinction he used to support the notion of a stratified form of social organization. While Sears's interpretation of social stratification at Kolomoki is questionable, the recognition of a tension between sacred and secular spheres is useful. It was this opposition between public and private arenas for social action that allowed for the growth of the village at Kolomoki and the development of more pronounced—albeit situational—positions of authority.

**Plummer, Thomas (CUNY Queens, NYCEP), Bishop, Laura (Liverpool John Moores University), Ditchfield, Peter (Oxford University), Kingston, Jonathan (Emory University) and Hertel, Fritz (California State University at Northridge)**

[17] *Consensus Approach to Reconstructing Oldowan Hominin Paleoeecology at Kanjera (Kenya) and Olduvai Gorge Bed I (Tanzania)*

The late Pliocene of Africa is notable for the appearance of the earliest archaeological traces and two new hominin genera (*Homo* and *Paranthropus*). Detailed reconstructions of paleohabitats are necessary to better understand the interplay between environmental change and hominin biological and behavioral evolution. Here we use antelope ecomorphology and stable isotopic analyses of tooth enamel and paleosol carbonates to evaluate Oldowan hominin paleoeecology, with a focus on comparing hominin activities at Kanjera, Kenya and Bed I Olduvai Gorge, Tanzania. Utilizing complementary methodologies at multiple localities provides a more accurate assessment of the range of variation in Oldowan hominin habitat usage.

**Plummer, Thomas [17]** see Braun, David

**Plunket, Patricia (Universidad de las Américas) and Uruñuela, Gabriela (Universidad de las Américas, Puebla)**

[140] *Cuexcomate: A 2000 Year Old Storage Tradition from Central Mexico*

Archaeological evidence from the archaeological site of Tetimpa, Puebla, in central Mexico has demonstrated that the wattle-and-daub storage bins known as cuexcomates were first constructed about 2000 years ago. Still in use in some towns on the eastern slopes of the Popocatepetl volcano, the dying tradition of contemporary cuexcomates provides valuable technological and functional insights for our interpretations of their archaeological counterparts.

**Plunket, Patricia [140]** see Uruñuela, Gabriela

**Poe, William (Sonoma State University)**

[101] *Truth on the Ground*

As GIS becomes a more common tool in the analysis of archaeological data on a regional level, the propagation of spatial data beyond the bounds of a particular project also becomes more common. Ground-truth survey and the recording of metadata become critical components as we rely upon shared spatial data. I will present examples of mapping problems from archaeological fieldwork in Mesoamerica that were caused by reasonable reliance upon spatial information not associated with a ground-truth survey and will also provide examples of ways to evaluate and describe the quality of spatial information.

**Pohl, John [65]** *Discussant*

**Pohl, Mary [158]** see Lentz, David

**Politis, Gustavo (CONICET)**

[83] *Little Hands in Context: The Ethnoarchaeology of Children among Tropical Hunter-gatherer Groups*

The activities of children have been little considered as causal factors in the formation of the archaeological record of past hunter-gatherers. This paper examines how children are social actors who actively create and modify material culture. The main data come from two ethnoarchaeological projects conducted among tropical hunter-gatherers: the Nukak in the Colombian Amazon and the Hoti in Venezuelan Guiana. Based on these cases and others from South America, this paper summarizes the contributions that children make to technology, food

procurement, and dwellings as well as explores how these contributions can be recognized in the archaeological record.

[154] *Discussant*

**Pollack, David (Kentucky Heritage Council) and Killoran, Peter (University of Wisconsin at Whitewater )**

[251] *Trends in Historic Cemetery Research in Kentucky*

Since the mid-1990s, a great deal of new research has been undertaken on historic cemeteries in the Kentucky. This research has focused on determining the internal organization of historic cemeteries, gaining new insights into nineteenth-century mortuary patterns, and learning more about the health of rural and urban populations. This paper summarizes these trends and identifies avenues for future cemetery research.

**Pollack, David [43]** *see Devlin, Joanne*; [251] *see Tillquist, Christopher*; [251] *see Killoran, Peter*

**Pollard, Helen [193]** *see Leavitt, Alissa*; [216] *see Fisher, Christopher*

**Pollock, Adam (Trent University)**

[220] *Investigating the Social Organization of Agricultural Production at the Ancient Maya Centre of Minanha, Belize*

Presenting the results of a two-year study of extensive agricultural terracing within the sustaining area of Minanha. This project included the mapping of terrace systems and settlement over a 5ha area, excavations of four terrace walls, as well as paleobotanical and soils analyses. Results suggest that these terraces are likely the result of long-term investments in the creation of agricultural plots suitable for intensive cultivation at the level of individual households. In addition, the presence of features associated with the control of land by lineages hints at the usefulness of this model for understanding the social organization of agricultural production.

**Pollock, Stephen [166]** *see Hamilton, Nathan*

**Ponte, Victor M. [185]** *see Palacios-Fest, Manuel R.*

**Pool, Christopher A. (University of Kentucky)**

[86] *The Early Horizon at Tres Zapotes: Implications for Olmec Interaction*

Modeling Olmec participation in Early Horizon interaction networks requires better understanding of the relations of gulf Olmec communities with one another as well as contemporaries elsewhere in Mesoamerica. Analysis of obsidian, pottery, and figurines from a recently isolated Early Formative component at Tres Zapotes indicates village inhabitants interacted with populations in eastern Olman but also forged their own economic and social ties with central Veracruz and the Mexican highlands. This evidence suggests a heterogeneous politico-economic landscape in which multiple polities of varying complexity participated in overlapping networks of interaction, alliance, and competition within and beyond Olman.

[23] *see Loughlin, Michael*; [178] *see Peres, Tanya M.*

**Pool, Michael (Austin Community College)**

[80] *Evaluating Prehistoric Agricultural Production Using a Crop Simulation*

A crop simulation program, DSSAT 3.5, is used to model and evaluate prehistoric maize agriculture in the middle Mimbres River valley of southwestern New Mexico. The crop simulation is used to evaluate planting dates and planting densities for maize, to evaluate the usability of soils in the study area, and to estimate maize production based on historic weather data. Even in the absence of detailed weather and climate data, such modeling can be used to evaluate maize production and examine the impact of environmental change on agriculture production.

**Pope, Kevin (Geo Eco Arc Research), Dahlin, Bruce (Howard University), Beach, Timothy (Georgetown University) and Luzzadder-Beach, Sheryl (George Mason University)**

[177] *A Natural History of the Yucatec Maya*

Changes in climate, groundwater, soil quality, and sea level have been critical environmental factors in the evolution of Yucatec Maya civilization. We compare these dynamic factors with ancient Maya settlement and subsistence patterns in northwestern (NW) Yucatan for the last 3000 years. We begin by combining data on geology, hydrology, soils, and vegetation to define seven ecological zones in NW Yucatan that have relevance to ancient Maya settlement and

environment dynamics. Periods of settlement expansion and site abandonment are correlated with episodes of environmental change to elucidate ancient Maya adaptation strategies.

**Pope, Kevin O. [177]** *see Hixson, David R.*

**Pope, Melody (Northwestern State University-CRO) and Sievert, April (Indiana University)**

[226] *Flaked Stone Tools, Value, and Interpretation*

Flake stone tools are important sources of archaeological information about subsistence, mobility, political economy, and beliefs in history and prehistory. However, whether for methodological or theoretical reasons, lithic studies often fail to integrate tools, people's lives, livelihoods, and histories. Using examples from Mesoamerica and Mesopotamia, we argue that materials analysis questions and those of broader anthropological interest ultimately raise questions about why people value things, in this case stone implements. By asking, "What confers value to stone for the people who make, trade, use, and even study stone implements?," we demonstrate how value informs the study of stone tools.

**Pope, Melody [5]** *see Sievert, April*

**Pope, Paul [143]** *see Greene, Mary K.*

**Popelka, Rachel [4]** *see Speakman, Robert J.*

**Popelka-Filcoff, Rachel (University of Missouri, Columbia), Robertson, J. David (University of Missouri, Columbia), Glascock, Michael (University of Missouri, Columbia) and Descantes, Christophe (Research Corporation of the University of Hawaii)**

[44] *Trends in Ochre Geochemistry from Instrumental Multi-Elemental Analysis*

Human-altered ochres are common artifacts on archaeological sites worldwide, in both art and mortuary contexts. While the archeological contexts and some cultural meaning are well known, the geochemical and provenance information on ochres is not well documented. This poster presents analytical data from x-ray fluorescence spectrometry (XRF) and neutron activation analysis (NAA) that indicate geochemical trends in the sources of archaeological ochres. Multivariate statistics of the data point to trends in the inter- and intra-source variability of ochres obtained from several locations in the U.S. These trends in geochemistry lead to a better understanding of ancient ochre procurement.

**Popenoe de Hatch, Marion (Universidad del Valle)**

[157] *The Ceramics of Chocola: Indications of Shifting Relationships*

Preliminary analyses of ceramics from Chocola indicate, surprisingly, they pertain not to coastal but to Guatemala Northwestern and Central Highlands ceramic traditions. The ceramics and the strategic position of Chocola on the connecting coastal and highland routes reflect a function in trade between Mexico, El Salvador and Kaminaljuyu during the Late Preclassic. However, beginning in the Late Preclassic, the Northwestern Highlands terminated its relationship with Kaminaljuyu, with different alliances evident by the Early Classic. In contrast, Chocola continued its interaction with Kaminaljuyu and the coast throughout both the Preclassic and Classic.

[9] *see Schieber de Lavarreda, Christa*

**Popova, Laura (University of Chicago)**

[71] *The Social and Political Aspects of Making Metal during the Late Bronze Age in Russia*

Archaeologists of the Volga-Ural region have uncovered evidence indicating that many settlements in the Late Bronze Age had metallurgical specialists. This prevalence of metalworking has lead researchers to refer to the demystification of metallurgy during the LBA. Settlements devoted to smelting copper ore are much more unusual. In 2004, a Late Bronze Age copper smelting site was excavated in forest-steppe zone of Samara, Russia. Using the archaeological and paleobotanical data from this site, this paper will examine how this metallurgical workshop changes our understanding of the social and political networks of the Volga-Ural region during the LBA.

[71] *see Marshall, Maureen*

**Porter, Benjamin (University of Pennsylvania) [11]** *Discussant*

**Porter, Jason (Utah State University), Pitblado, Bonnie (Utah State University), Dehler, Carol (Utah State University), Merriman, Chris (Utah State University) and Myer, Caroline (Utah State University)**

[217] *Experiments in Sourcing Rocky Mountain Late Paleoindian Quartzite*

This paper reports the results of experiments designed to systematically evaluate the common perception that quartzites do not readily lend themselves to geochemical or other sourcing techniques. We report the results of a pilot project that attempts to match quartzite tools and debitage from the late Paleoindian Chance Gulch site in southwestern Colorado to four possible source localities within a few kilometers of the site. The four techniques we explore in our study include petrographic analysis; x-ray fluorescence; cathodoluminescence, and inductively coupled plasma mass spectrometry. We evaluate the potential of each technique to fingerprint archaeologically occurring quartzites.

**Porter, John [92]** *see Francis, Peter*

**Portillo, Garth (Bureau of Land Management, Utah)**

[6] *Four Corners BLM Celebration of the American Antiquities Act*

The American Antiquities Act enables the BLM and other federal agencies to protect and preserve America's non-renewable archaeological and historical properties. In 2006, the BLM will celebrate 100 years of historic preservation that began with the passage of the Antiquities Act and has continued with the enactment of additional laws. The Four Corners BLM is celebrating the Antiquities Centennial with heritage education events and a variety of field projects with public involvement which record, evaluate, and/or stabilize important archaeological sites. Heritage outreach projects not only help the public understand the importance of their cultural resources but also promote good management.

**Potter, Jim [7]** *see Wilshusen, Richard*

**Potts, Richard (Smithsonian Institution)**

[17] *Oldest Artifacts in China: Spread of the Oldowan to East Asia*

Magnetostratigraphic ages of archeological strata in the Yuanmou and Nihewan basins show that the oldest stone tools in China are ~1.71-1.66 million years old. The artifacts exhibit details of percussion flaking and core form that match those of the African Oldowan. Nihewan toolmakers accessed a broad range of mammalian taxa and body sizes; accumulated animal bones and stone tools in distinct concentrations; and butchered animals and extracted bone marrow. After a rapid dispersal, Oldowan toolmakers of Asia adapted their stone flaking capabilities to a wide variety of rock types and their overall behavior to a wide spectrum of novel habitats.

**Potts, Rick [32]** *see Yellen, John; [197]* *see Tryon, Christian*

**Powell, Doss (University of Nevada Las Vegas)**

[232] *Environmental Adaptations and Impacts in the Fragile Desert Ecology at Ghwair I*

Ghwair I is a small, richly preserved Pre-Pottery Neolithic B (PPNB) community located in the remote Wadi Faynan region of southern Jordan. The stimulus for the proposed research at Ghwair I is to explore past human populations impacts on the fragile and arid desert ecologies. Ghwair I's rich fauna and flora are exceptionally useful not only for paleoenvironmental and paleoecological reconstructions to explore past human economic behaviors, but also understanding the social and ideological implications. The nature of the foods consumed, feasting, and specialization are all considered as we try to delineate the complex social organization at Ghwair I.

**Powers, Robert (National Park Service) [129]** *Discussant*

**Powis, Terry (Kennesaw State University) and Cheetham, David (Arizona State University)**

[164] *From House to Holy: Formative Development of Civic-ceremonial Architecture in the East-Central Maya Lowlands*

Investigations in the Belize Valley have yielded Middle and Late Formative period (c. 950 BC-AD 100) civic-ceremonial architecture. During this era the focus of communal ritual life shifted from elite residences to modest temple platforms to temple-pyramids. We discuss this development in a social and political-religious framework. Of particular interest is the shift (c. 800 BC) from elite houses to temple platforms, a reverent treatment suggesting that the descendants of incipient

Maya leaders enjoyed an increased and perhaps uninterrupted role in political and religious affairs. The Belize Valley data are compared and contrasted with other Maya Lowland areas and distant Mesoamerican regions.

**Pozorski, Shelia (University of Texas-Pan American) and Pozorski, Thomas**

[212] *Residential Architecture and Associated Activities at the Initial Period Site of Pampa de las Llamas-Moxe in the Casma Valley*

Excavations at Pampa de las Llamas-Moxe in the Casma Valley included extensive horizontal clearing within unusually well-preserved areas of residential architecture. Adjacent stratified midden was also heavily sampled. The resultant data allow the authors to distinguish such aspects as status differences, functional differences, subsistence practices, evidence of cottage industry, and burial patterns within the excavated sample. Because this site was abandoned ca. 1400 cal. BC, but never significantly reoccupied, the site provides an exceptionally complete record of the Initial Period residential component that is critical to both synchronic and diachronic assessments of this phenomenon in the Andes.

**Pozorski, Shelia [207]** see *Pozorski, Thomas*

**Pozorski, Thomas (University of Texas-Pan American) and Pozorski, Shelia (University of Texas-Pan American)**

[207] *Initial Period Monumentality and Sociopolitical Organization in the Casma Valley, Peru*

In the Casma Valley area of Peru, truly monumental construction suddenly appears in the Initial Period associated with the advent of inland intensive agriculture along with a continued dependence on marine resources for animal protein. Sociopolitical complexity approaching early state level society is reflected in numerous sites that exhibit precise modular site planning, huge mounds erected in large labor-intensive building phases, and special function constructions that contain both "practical" and "non-practical" features. Sporadic architectural features, subsistence remains, and artifacts indicate some limited contact with coastal cultures to the north and highland cultures to the east.

**Pozorski, Thomas [212]** see *Pozorski, Shelia*

**Prasarn, Nahum (Montclair State University), Davis, Peter F. (Montclair State University) and Dias, Sandra (University of Texas at Austin)**

[246] *Water Management in a Late Classic Maya Community on the Rio Bravo Escarpment, Northern Belize*

The Late-Classic (AD 600-850) site of Chawak But'o'ob spans 1100 meters of the Rio Bravo escarpment in northwest Belize. Archaeological research indicates that inhabitants of this site managed water resources over hundreds of meters of sloping land surface through a network of basins, channels, reservoirs, terraces, and dams. The complex and extensive integration of these features with topography, natural drainage, and domestic structures is evidence for both sophisticated control of water well outside of cities and Maya suburban planning.

**Prasciunas, Mary M. [72]** see *Anderson, Derek T.*

**Prassack, Kari (Rutgers University)**

[40] *Small Carnivore Modification of Bird Bone: Examples from Modern and Fossil Saline Lake Settings in East Africa*

Preliminary analysis of Plio-Pleistocene fossil bird bone from Olduvai Gorge, Tanzania, shows a high incidence (over 50% of NISP) of modification by small carnivores. Bird bone modified by small carnivores is also common at modern East African saline lakes. Hindlimb-forelimb ratios at these lakes suggest that an apparent abundance of wings at many archaeological sites is due to carnivore consumption of meatier hindlimbs and axial parts. Hindlimbs are heavily ravaged or absent and carnivore modification to forelimbs is mostly limited to the proximal humerus. Smaller carnivores are important taphonomic agents of bird bone in saline lake settings.

**Pratt, Robert [43]** see *Quates, E.W. Duane*

**Prendergast, Mary (Harvard University)**

[215] *Complex Fisher-foragers on the Eve of Food Production: Examples from Mumba and Sonai Rockshelters (Tanzania) and Wadh Lang'o (Kenya)*

Living African foragers offer a significant yet limited analogy to our past, since greater variability

likely existed before the spread of food production. Compared with research on Plio-Pleistocene hominids and modern hunter-gatherers, little is known of African foragers after the emergence of modern humans. Current fieldwork and zooarchaeological analysis suggest that a complex Holocene fishing-foraging tradition extended from Lake Victoria to Lake Eyasi, perhaps sharing roots with North African fisher-foragers. The sites are densely occupied and optimally situated for fishing. When compared with both modern and archaeological Hadza sites, this tradition is distinct in its specialized, possibly delayed-return foraging strategy.

[133] *see Eren, Metin*

**Prentiss, William (University of Montana) and Clarke, David (University of Montana)**

[133] *Lithic Tool Retouch, Artifact Life Histories, and Logistical Mobility at a Complex Hunter-Gatherer Village in British Columbia*

The complex hunter-gatherer villages of the Mid-Fraser Canyon in British Columbia were occupied by relatively sedentary groups employing a collector economic strategy with substantial logistical mobility. Recent research at the Bridge River site suggests that favored resource targets may have changed through time (ca. 1900-200 BP) implying concomitant shifts in logistical mobility range and frequency. In this paper, we examine variation in the life cycles of retouched tools as a means of assessing variability in the role of logistical organization in ancient Mid-Fraser economies. We offer comments on the utility of the measures for the study of hunter-gatherer subsistence and mobility strategies.

**Prest, Margaret L. [42]** *see Livingood, Patrick*

**Preucel, Robert W. (University of Pennsylvania)**

[110] *The Logic of Archaeology*

James N. Hill was a strong advocate of positivism as a guiding philosophy for archaeological explanation. He championed the hypothetico-deductive model and the hypothesis testing methodology. This approach, however, has come under sharp critique from within the philosophy of science and archaeology. In my presentation, I focus on the logic of archaeology taking a semiotic point of view. I suggest first, that archaeology is a semiotic activity and second, that one of our goals should be to consider how cultures deploy specific modalities towards particular semiotic ends. An archaeology conceived in this fashion can be called a Pragmatic Archaeology.

[186] *Discussant*

**Prezzano, Susan (Clarion University), Glaz, Amanda (Allegheny National Forest), Stewart, Roswell (Cornell-Abraxas) and Bloom, Guy (Cornell-Abraxas)**

[92] *Thinking Outside the Square: Archaeology as a Builder of Unique Communities*

For several field seasons, the Anthropology program at Clarion University partnered with the Allegheny National Forest and members of Cornell-Abraxas, a high school of adjudicated youths, in the investigation of archaeological resources in western Pennsylvania. This unique collaboration of individuals from the federal, state, and private sectors has led to many benefits beyond the recovery of archaeological data and the promotion of archaeological research. Ultimately, the performance of archaeology served as a dynamic forum where diverse peoples, ethnic groups, and organizations met and created community.

**Price, Alan [62]** *see Nicoli, Joe*

**Price, Heather [88]** *Discussant*

**Price, T. Douglas (University of Wisconsin - Madison) [109]** *Discussant*; [206] *Discussant*

**Pritchard, Genevieve [189]** *see Beebe, Caroline*

**Privat, Karen [239]** *see Pike-Tay, Anne*

**Průchová, Erika [223]** *see Sosna, Daniel*

**Prufer, Keith (Wichita State University) and Kindon, Andrew (West Valley College)**

[159] *Settlement and Architecture in Southern Belize: Temporal and Spatial Variation in a Well Defined Region*

Southern Belize is a physically circumscribed region that rose to prominence on the heels of larger neighbors in the Peten. Rapid growth during the Early and Late Classic may have been

due to the presence of fertile agricultural lands and economically important biotic and mineral resources in demand across the Lowlands. Sites in the region display considerable variation in architectural forms, reflecting differing geographic zones, the availability of construction materials, and local population pressures. This paper examines architecture styles at mountain and foothills sites through the lens of site planning decisions, resource availability, and regional interaction.

**Prufer, Olaf [132]** *see Meindl, Richard*

**Pugh, Christina Waskiewicz (Washington University in St. Louis)**

[198] *From Pithouses to Pueblos: Aggregation, Animals and Sustainability Seen through Taos Zooarchaeology and Isotopes*

This paper examines the relationship between aggregation, changes in farming, increasing anthropogenic modification of the environment, and shifts in hunting and processing strategies in the Taos region of New Mexico from AD 950 -1320. Analyses focus on zooarchaeological remains from Taos area pithouses, unit pueblos, and the large aggregated village of Pot Creek Pueblo. Standard zooarchaeological methods such as the analysis of taxonomic variation, body-part representation, and bone modification are used in combination with isotopic research on non-human faunal remains to address this issue.

**Pugh, Daniel (University of Michigan)**

[35] *Expansion and Interaction in a Tribal Border Zone: Oneota Settlement of the Central Plains* Investigations at the Swantek Site in Nebraska reveal an Oneota occupation during the 13th through 14th centuries AD. This – taken with evidence of other Oneota occupations in the Plains, concurrent population shifts, evidence of violence, and the significant Oneota migration and settlement documented in the White Rock area – indicates a significant expansion of the Oneota territorial system driven by conditions in the Midwest and permanently affecting the Plains' social organization. By comparing Oneota's western edge during the 13th-14th centuries with its edges at other points in time and space, arguments are made as to the nature of Oneota's edge-zone processes.

**Pugh, Timothy (Queens College/CUNY), Rice, Prudence (Southern Illinois University at Carbondale) and Rice, Don (Southern Illinois University at Carbondale)**

[49] *Urban Planning in Middle Postclassic to Contact Period Peten, Guatemala*

During the 13th to 17th century, the Kowoj occupied the eastern portion of the Peten Lakes region of Guatemala. Kowoj settlements at several sites had planned civic-ceremonial groups surrounded by densely concentrated residential groups. The Kowoj standardized monumentality to a degree that was not found elsewhere in Postclassic Peten. The planning of the Kowoj centers is evident not just in the forms of the ceremonial groups at a particular point in time, but also in their development through time. These data indicate that planning can be regional, rather than site specific, and may have been tied to cyclical time.

**Pumarada, Luis [176]** *see Cinquino, Michael A*

**Punzo Diaz, José Luis [27]** *see Zavala, Bridget*

**Pyburn, K. Anne (Indiana University)**

[124] *Collegiality and Commerce*

It is a commonly held proposition that the degree of heritage related violence and site destruction within a nation state is directly proportional to the degree of socioeconomic inequality. However, anecdotal evidence suggests that important factors mitigate the role that archaeology and heritage play in the political economy of globalization. In this paper I argue that archaeology can have a positive effect on globalizing nation states, but only if issues of heritage management and national identity are developed from within communities of local and indigenous archaeologists.

[26] *Discussant*; [189] *Discussant*

**Pye, Mary E. [236]** *see Gutierrez, Gerardo*

**Quates, Duane [134]** *see Carroll, Jon*

**Quates, E.W. Duane (Michigan State University), Pratt, Robert (East Lansing Fire Dept.), Goldstein, Lynne (Michigan State University), Lewis, Kenneth (Michigan State University) and Mustonen, Heather (Michigan State University)**

[43] *Understanding the Saints' Rest Fire Through Fire Investigation and Archaeology*  
Saints' Rest was the first dormitory on the campus of the State Agricultural College of Michigan, now known as Michigan State University. Built in 1856, it burned during the winter break of 1876. In the summer of 2005, the Department of Anthropology at MSU conducted its annual field school on this site. One of the many goals of the project was to determine the cause and progression of the fire by using the expertise of the fire marshalls from the MSU and East Lansing Fire Departments. This poster will explore this aspect of our investigation.

**Quesenberry, Melisa A. (University of Central Arkansas) and Morales Jr., Reinaldo (University of Central Arkansas)**

[126] *From Cacibajagua to Chicomoztoc: The Cave Art Connection*  
Archaeologists acknowledge no significant material evidence of interaction between the Classic and Postclassic civilizations of mainland Mesoamerica and the contemporary cultures from the Greater Antilles. Similarities in cave art and cave use, however, suggest a significant shared and persistent cognitive and aesthetic connection. This paper addresses the mytho-historic, ceremonial, and aesthetic similarities between cave art --specifically, modified speleothems-- from the Greater Antilles and mainland Mesoamerica.

**Quilter, Jeffrey (Harvard University)**

[205] *Staves, Stones, Trees, and Pillars in the Pre-Columbian World*  
Throughout the Ancient New World and to recent times, tall stones and wooden shafts have held special symbolic roles. At Chavin de Huantar, the Staff God stands with staves while the Great God, inside the temple, is in the shape of a lancehead. Among the Maya, tall stones--stelae-- were elaborately decorated with the portraits and deeds of lords. In Costa Rica, tall stones mark graves in Chiriqui cemeteries. Some years ago, Donald Lathrap suggested that such monuments were symbolic World Trees, cycling cosmic power. This paper examines this concept and these objects and seeks to see other connections and relations between them.

**Quinn, Colin Patrick (Washington State University), Andrefsky, Jr., William (Washington State University) and Kuijt, Ian (University of Notre Dame)**

[133] *Stone Tool Drilling Technology and Retouch Intensity: A Neolithic Case Study*  
Measuring retouch on stone tools can only be accomplished by considering the influence of manufacturing processes, curation cycles, and overall tool use life. This paper explores retouch patterns on a lithic assemblage of perforating tools associated with ground stone bead production from Dhra', Jordan, a Neolithic site occupied 11,500 years ago. Stone tool manufacture and curation practices are identified using experimentally replicated data. These data are used to help build techniques to measure retouch amount and intensity on the archaeological assemblage while gaining insight into bead production and the organization of technologies during the forager to farmer transition.

**Quiroz, Daniel (Universidad De Chile) [154] *Discussant***

**Quitmyer, Irvy [8] *see Reitz, Elizabeth***

**Raczek, Teresa (University of Pennsylvania)**

[114] *Historic Period Prehistory: Using the Texts of Our Archaeological Ancestors for Non-textual Time Periods*

Unlike historic-period archaeologists, those working in prehistoric time periods are assumed to proceed without the aid of historic texts. While some draw from the earliest texts to extrapolate ancient ways of life or to develop a history for unrecorded times, nearly all prehistoric archaeologists utilize the writings of the antiquarian explorers and pioneering archaeologists in their work. This paper will explore the influence of these early writings on later research trends in prehistoric archaeology with special focus on the early British explorers in India.

**Rademaker, Kurt (Climate Change Institute, University of Maine), Bromley, Gordon (Climate Change Institute, University of Maine) and Fortin, Louis (Department of Anthropology, University of Maine)**

[53] *Fire and Ice: Volcanic Glass, Glaciers, and the Initial Settlement of Southern Peru*  
We present preliminary results from recent interdisciplinary work at the highland Alca obsidian



source and the Nevado Firura glacier in southern Peru. In the late Pleistocene, high elevation paleogeography of this region was considerably different than it is today. Highland sites that appear contemporary with the well-dated coastal occupation at Quebrada Jaguay suggest that early foragers occupied the periglacial zone. Determining the timing and spatial extent of glacial advances and retreats is the first step in modeling other elements of Andean highland paleoenvironments to refine the search for early human settlements in this and other coast-highland corridors.

**Raemaekers, Daan (University of Groningen)**

[19] *The Spread of Agriculture in the Netherlands: A Singularity?*

In general terms, the spread of agriculture in Europe seems to have occurred in a series of waves. The Netherlands provide a well-documented case study which may serve as a cautionary tale for the general validity of this model. Around 1990 the evidence fitted well in the general model for northern Europe. It suggested a full-scale adoption of farming around 4000 cal. BC. New research makes clear that in the fifth millennium BC a society developed best described as hunter-gatherer-farmers. The presentation is a plea for the study of regional prehistories as opposed to high-level generalizations.

**Rafferty, Janet (Mississippi State University)**

[242] *From Dispersed to Nucleated Settlement Patterns in Northeast Mississippi*

In the Ohio valley, Woodland sedentary settlement patterns changed from dispersed to nucleated and earthworks were abandoned. In northeast Mississippi from 200 BC to AD 200, a dispersed pattern, associated with vacant ceremonial centers such as Ingomar Mounds, was present. Ceramic seriation of survey assemblages shows that small occupations became fewer through time and space, from the Black Prairie on the east to the North Central Hills on the west. A concomitant increase in nucleated occupations (larger than 3 ha) was accompanied by earthwork disuse. Nucleation proved unsustainable and abandonment followed.

**Rafferty, Sean M. (University at Albany) and Rieth, Christina B. (New York State Museum)**

[172] *The Use of Archaeometric Techniques in Northeast Research and Compliance Projects: An Introduction*

The use of archaeometric techniques in Northeast research and compliance projects has the potential to inform us about the exploitation of natural resources, the relationships between disparate populations, and the nature of intra- and inter-regional interactions. In this paper, the authors provide a general overview of the history of the use of archaeometric techniques in the region and summarize recent studies that have employed these techniques. The pros and cons of using archaeometric techniques in Northeast research and compliance projects are also discussed.

**Rafferty, Sean M. [172] see Shanley, Michael**

**Ragan, Elizabeth (Salisbury University)**

[227] *Rouge & Dogg & Scotch Irish Mens' God: A "Scotch pedlar" in the 17<sup>th</sup>-Century Chesapeake*

It has long been suspected that Scotland was heavily involved in Chesapeake trade before 1707, despite the Navigation Acts. David Browne, a free Glaswegian who emigrated to Somerset County, Maryland, by 1670, may have been a principal agent in this enterprise. Browne rapidly gained wealth and high office, despite being a Presbyterian; exploratory excavations at his plantation have unearthed a range of Continental imports; and—unusual for men of his status—his probate inventory does not include credit to others. Did he operate on a "cash" basis because he could not have brought his trading partners to court for debt?

**Rahmani, Noura [74] see Desrosiers, Pierre M.**

**Railey, Jim (SWCA - Albuquerque)**

[160] *Middle and Late Archaic Sites on Albuquerque's West Mesa: Seasonal Camps or Marginalized Hunter-Gatherers*

Among the considerable body of new evidence for Middle and Late Archaic occupations on Albuquerque's West Mesa is very little or no evidence for agriculture, which contrasts with at least some Late Archaic sites in adjacent valley contexts. The widespread assumption is that the mesa sites represent seasonal encampments and settlements occupied by the same people who also lived in the adjacent river valleys. This paper explores an alternative possibility – that these

sites represent marginalized foragers, who were pushed onto the mesa as a result of sharp population growth and the emergence of incipient farming communities in the river valleys.

**Rainer, Leslie (Wall Paintings Conservator) and Bass Rivera, Angelyn (Conservator)**

[48] *In Situ Conservation of Late Pre-Classic Maya Wall Paintings and Architectural Features during Excavation at Las Pinturas, San Bartolo*

Following the discovery of late pre-classic murals at San Bartolo in 2001, conservation of the wall paintings and architectural features has been carried out in conjunction with their excavation. In situ conservation treatments have focused on stabilizing wall paintings and stucco, completing baseline documentation, reattaching mural fragments, and light surface cleaning to facilitate documentation and interpretation of the murals. Minimal intervention and a phased conservation approach have allowed excavation to continue unimpeded while preserving the structural and material integrity of the wall paintings and other architectural features for future study and presentation.

**Rakita, Gordon (University of North Florida)**

[82] *Life in Print: The Publication Record of Jane Buikstra*

Jane Buikstra's publications span over three decades and a tremendous range of topics including, bioarchaeology, mortuary ritual, archaeology, paleopathology, paleodemography, prehistoric diet and health reconstruction, bone microstructure, biological distance, ethnicity, and forensic anthropology. This paper presents an examination of trends in Buikstra's publication record. Special attention will be given to the nature of publications, be they theoretical, methodological, or empirical and the geographic and topical coverage of each publication. The intent of this analysis is to identify trends in Buikstra's career and correlate these trends with overarching trends in Bioarchaeology and the Anthropological discipline as a whole.

[11] Discussant; [47] see Lozada, Maria Cecilia

**Ramenofsky, Ann (University of New Mexico)**

[129] *Agricultural Production in the Jemez Mountains: From Coalition through Early Historic*

Agriculture is a risky strategy in the Southwest. In the Jemez Mountains, archaeological evidence, including field houses and field improvement features in upland settings, began to be practiced following settlement around AD 1250. This upland pattern agricultural production and intensification continued even after much of the remainder of the Pueblo world had relocated to lowland riparian areas in the late 1400s. Recent survey has documented improved gardens and field houses at elevations greater than 2470 meters (8100 feet) as part of a diverse system of mesa-top and canyon-slope fields, indicating maximized production in this extremely marginal setting.

**Ramirez, Constance (Federal Preservation Institute, National Park Service)**

[225] *Historic Preservation Learning Portal: A Performance Support Project for Cultural Resource Managers*

The Historic Preservation Learning Portal ([www.historicpreservation.gov](http://www.historicpreservation.gov)) is being developed by a partnership of 20 federal programs for persons responsible for carrying out the National Historic Preservation Act and 40 related public laws. It is designed to assist senior executives, program managers, specialists, contractors, and state, tribal, and local government officials and staff, as well as private organizations and individual. This community of users needs current information on a wide range of topics. Users can query more than 800 relevant Internet sites in plain language through a dynamic reasoning software, thereby enhancing productivity and reducing staff time and costs.

**Ramirez, Nicole (engineering-environmental Management, Inc/UNM), Kilby, David (University of New Mexico/e2M), Gallison, James (engineering-environmental Management, Inc.), Renner, Valerie (Kirtland Air Force Base) and Church, Michael (University of New Mexico)**

[198] *A Geospatial Approach to Rock Shelter Use in the Manzanita Mountains, New Mexico*

Rockshelters are an important component of the archaeological record of the Manzanita Mountains in New Mexico. This paper evaluates data on cultural assemblages in rockshelters in the 18,000-acre study area, a record that shows evidence of rockshelter use from the Archaic to the recent historic period. Using geospatial technologies, this paper looks at patterns of rockshelter function, seasonality of use, and cultural context. The paper examines this record for change and stasis in rockshelter use for the dozens of rockshelters

in the study area.

**Ramirez, Nicole [198]** *see* Gallison, Jim

**Ramos, Jorge (University of California, Riverside)**

[210] *Symbols of Power: The Iconography of Yax Pasaj's Temple 16 at Copan*

Temple 16, the last building on the sacred axis of the Acropolis, displays iconographic themes accentuating the cult of the founder of the Copan dynasty, as well as the site of Teotihuacan, to perpetuate both royal power and the conceptual center of the Copan people. As discussed here, ancestral royal dedicated spaces in Maya cities became sacred places for later generations of rulers and community members. These spaces were pivotal centers for the subsequent construction of buildings, monumental imagery and ritual activities reflecting the significance of the founder in maintaining both identity and the ideological tenets of the polity.

**Ramsey, Ann [31]** *see* Klippel, Walter

**Ramsey, Dawn (Texas Army National Guard)**

[97] *Modeling the Effects of Soil Erosion on Archaeological Resources through Spatial Analysis: A Case Study from Texas*

Spatial analysis has become a common tool in cultural resources management in order to more efficiently manage archaeological resources. At the forefront of this research is the use of predictive modeling to evaluate the potential of archaeological resources on the landscape. However, spatial studies on natural impacts on archaeological resources have received less attention. This paper addresses spatial modeling research on soil erosion processes and their effects on the integrity and preservation of archaeological resources. Through the use of GIS, this study evaluates risk potential of erosion and damage to archaeological sites on Texas Army National Guard training facilities.

**Randall, Asa (University of Florida) and Sassaman, Kenneth (University of Florida)**

[54] *Selective Memory During the Late Archaic in East-Central Florida*

The emergence of ceramic traditions during the Late Archaic along the middle St. Johns River in Florida is characterized by a dichotomy between the cessation of monumental shell mound construction and continuity in traditional subsistence practices. Although not mound builders, local pottery producing communities invoked the past by situating some villages adjacent to Preceramic mounds, performing commemorative practices at others, and avoiding many more. This study uses recent investigations along the middle St. Johns to explore the ways that agents selectively used the past to make new traditions, personnel, and social arrangements meaningful in the context of continued daily practices.

**Randall, Asa [8]** *see* Sassaman, Kenneth

**Ranere, Anthony (Temple University)**

[102] *An 11,000 Year Lithic Sequence for Panama*

Changes in Panama lithic assemblages mirror changes in subsistence practices, mobility and social complexity through time. The sequence begins with chipped stone industries characterized by fluted points along with butchering and hide-working tools. By 7000 14C years ago, small mobile groups practicing swidden cultivation use chipped stone tools made on flakes struck from unprepared cores. Grinding and pounding tools are made on selected cobbles and modified primarily by use. The establishment of large sedentary agricultural populations at the end of the 3rd millennium BP marks the beginning of craft specialization in chipped, ground and polished stone industries.

**Rapson, David J. [217]** *see* Hill, Matthew G.

**Rapu-Haao, Sergio (University of Hawaii)**

[50] *The Transportation of Stone Statues of Easter Island: An Evolutionary Perspective*

Scholars have been interested in the transportation of Easter Island's statues for decades. This paper uses evolutionary theory, focusing on functional features of the statues, and develops an alternative solution to problems faced by prehistoric Easter Islanders. Field research, engineering analysis, and experiments with statue models, have shown that transportation dictates form and stylistic was constrained by the engineering limitations. The prehistoric Rapanui transported statues weighing over 100 tons, without the excessive use of timber. Rather, with simple cords, stone wedges, a complex understanding of weight distribution, and

movement in a vertical position, the islanders efficiently manipulated them to their final destination.

**Rapu-Haoa, Sergio [50]** *see* Hunt, Terry

**Rauh, Nicholas [232]** *see* Wandsnider, LuAnn

**Ray, Jack H. (Missouri State University) and Lopinot, Neal (Missouri State University)**

[217] *Late Paleoindian Interaction and Exchange at the Big Eddy Site in Southwest Missouri*

Multiple contemporaneous Late Paleoindian components have been identified in a 35-cm thick Late Paleoindian horizon at the deep stratified Big Eddy site in southwest Missouri. Large assemblages of Dalton and San Patrice artifacts have been recovered, as well as four possible early Kirk/Wilson points. A significant number of exotic cherts from multiple regions surrounding southwest Missouri lend credence to the interpretation that the Big Eddy site served as an aggregation (or rendezvous) site during Late Paleoindian times. A reliable suite of radiocarbon dates indicates the Late Paleoindian horizon at Big Eddy dates ca. 10,400-9,800 rcybp.

**Raymer, Leslie (New South Associates, Inc.)**

[249] *Macro-Botanical Remains from Ten Mile Creek*

The abundance of wood charcoal in feature fill relative to unit column samples suggests limited post-depositional movement. This inference is supported by different proportions of hardwoods and conifers. The sparsity of nut mast and seeds suggests that large scale processing, consumption, and storage was not a major concern of the inhabitants. The increase of pine charcoal within a light gray sand layer at Ten Mile Creek suggests the onset of drier conditions during the East Okeechobee I period.

**Rebellato, Lilian (Universidade de Sao Paulo) and Neves, Eduardo**

**(Universidade de Sao Paulo)**

[202] *Soil Chemical Analysis and Community Patterns at the Hatahara Site, Central Amazon*

Soil chemical analysis was done to understand human activities at Hatahara site, placed at Central Amazon. This site presents a thick A horizon, classified as anthropogenic soil developed during the pre-European occupation of the site. The dark soil has higher fertility (generated by a high P, Ca, N, K, Mg and organic matter contents) when compared to surrounding soils, presenting a higher content of carbon, pottery, faunal and lithics. The research established the relation between distribution of artifacts and the results of soil chemical analysis, helping to understand the use of space in the site.

**Rebich, Stacy (University of California, Santa Barbara), Goodchild, Fiona (University of California, Santa Barbara) and Janelle, Don (University of California, Santa Barbara)**

[148] *Spatial Thinking and Technologies in the Undergraduate Social Science Classroom*

Spatial thinking and analysis have greatly enhanced social science research throughout the past century, but explicit practice of spatial thinking in undergraduate social science courses is still quite rare. New computer technology to handle spatial information offers exciting opportunities; recently discussed at NSF-sponsored SPACE workshops on spatial thinking in undergraduate education. We will discuss insights and strategies that emerged from these workshops in the context of the literature on spatial thinking in education and contemporary cognitive and learning theories. We will also include practical suggestions about pedagogic approaches and assessment strategies that are proving successful in enhancing social science education.

**Rebich, Stacy (University of California, Santa Barbara) [148]** *Discussant*

**Rebnegger, Karin J. (Michigan State University)**

[193] *Changes in Obsidian Production and Consumption in the Lake Patzcuaro Basin, Michoacan*

A hierarchy of settlements existed around Lake Patzcuaro from the Tarascan capitol of Tzintzuntzan to secondary administration sites and tributary centers. Analysis of obsidian from two sites, one an administration center and the other a tribute center have highlighted particular patterns and changes in production and consumption of obsidian from local and long distance sources. Local and state elites inhabited both sites and analyses of obsidian manufacture and source location show that these sites may have had different functions. This too may indicate the changing socio-political organization of obsidian production and use throughout the Tarascan State.

**Reckner, Paul (SUNY-Binghamton)**

[13] *Working Hard or Hardly Working?: Concepts of Labor and Leisure at the Intersection of Space, Class, and Identity*

Ideas of labor and leisure pervade virtually every aspect of social experience. How we (and our subjects) define the concepts of labor and leisure shapes understandings of class, identity, and the capitalist system. And as archaeologists we deploy these concepts in our typologies of objects, spaces, and practices. Given that we, as researchers, carry with us very particular (particularly ambiguous?) sets of ideas about labor and leisure, greater attention to how we use these concepts in our work is critical. This paper poses a series of broad questions regarding theories of labor and leisure as they intersect with some of the old chestnuts of sociological and archaeological thought.

**Redwine, Charles (Panamerican Consultants, Inc.)**

[213] *Why Shell Temper? Cooking Technology or Meaningful Metaphor?*

For years efforts have been made to explain the spread of the manufacture of shell-tempered pottery across southeastern North America during the Mississippian Period. Most attempts have focused on demonstrating, by experiment, the mechanical superiority of shell-tempered vessels for cooking, in particular for boiling corn. Almost no positive results have been produced by this experimental archaeology. Therefore, another hypothesis is advanced to explain why Mississippian Societies adopted shell-tempered pottery. This hypothesis draws on symbolic and cultural factors in the Mississippianization process. Empirical data will be cited in support of this hypothesis, in addition to inferential reasoning.

**Reed, David [218]** *see Zeleznik, Scott*

**Reed, Kristen (Panamerican Consultants, Inc.), Kyker, Rachel (Panamerican Consultants, Inc.) and Wood, Laura (Panamerican Consultants, Inc.)**

[92] *Cemetery Removal: A Case Study*

Cemetery removal law confusion on the state level prompted this paper as no clear outline has been found. This confusion was experienced during a 2003 cemetery relocation project in Tuscaloosa County, Alabama conducted by Panamerican Consultants, Inc. An outline and brief explanation of Federal and state laws affecting cemetery removal procedures is given. The Alabama Historical Commission's role in cemetery preservation with their Historic Cemetery Survey Program as well as offering guidance with NAGPRA procedures is analyzed. Implementation of the guidelines and procedures are illustrated through discussion of the cemetery relocation project example.

**Reeder, Leslie (Southern Methodist University), Swihart, Caitlin (Southern Methodist University) and Terrell, Brandi (Southern Methodist University)**

[108] *Investigations at a Prehistoric Chert Quarry, Taos Valley, New Mexico*

This paper details preliminary investigations of a previously undocumented prehistoric chert quarry in the Taos Valley, New Mexico conducted in 2005. The quarry and associated surface scatter include local and non-local lithic materials. On-site analyses included intensive analysis of a twenty-five by ten meter grid immediately below the outcrops and a broader walking survey. We compare our results with a surface survey conducted two kilometers away in 2004. Results suggest that, while quarry products were used to replace tools of non-local materials, the site was used for all stages of reduction of local chert and for reshaping of non-local materials.

**Reeder, Philip [182]** *see Colas, Pierre*

**Reese-Taylor, Kathryn (University of Calgary)**

[49] *The Metropolitan Maya*

Many scholars agree that urbanism is a key feature in city-states. But generally, urbanism is not a trait associated with pre-industrial societies. Therefore, how and why city-states formed in predominantly agrarian societies continues to be especially vexing. This is particularly true when discussing issues of complexity among the Classic Maya, where the concept of an urbanized cityscape is highly contested. To address these issues, I explore the process of urbanization in the political landscape of the north-central Peten between AD 150 and 400. I conclude that not only was urbanization present, but it was a prerequisite for the development of the Maya city-state.

Reeves, Dan [196] *see Robinson, David*

Reeves, Matthew [5] *see Burgess, Laurie*

**Rega, Elizabeth A. (Western University)**

[47] *Human Skeletal Remains From Sommerville Cave, Clarendon County Jamaica*

Collaborative excavations in the Jackson's Bay Cave series in Jamaica addressed the role of aboriginal humans in the late Quaternary endemic terrestrial mammal fauna extinctions in the West Indies. Sommerville Cave contains the type locality for the endemic extinct monkey *Xenothrix* and yielded hundreds of human bone fragments and associated artifacts (AMS cal. AD 1290-1410). Analysis of these remains -- utilizing a Javascript MNI program -- yielded a minimum of 12 individuals. Femora spiral fracture in a teenager suggests high velocity antemortem impact. Faunally-mediated bioturbation resulted in demonstrable sorting of bone fragments by size, rendering the site stratigraphy problematic.

**Reher, Charles (University of Wyoming), Francis, Julie (Wyo. Dept. Transportation), Weathermon, Rick (Univ. Wyoming), Basgall, Ashly (Univ. Wyoming) and Frison, George (Univ. Wyoming)**

[209] *The Rock Art at Medicine Lodge*

Medicine Lodge Creek (48BH499) is a deeply stratified Bighorn Mountains rockshelter/campsite. A rock art component stretched along 250 meters of cliff face is well known to many investigators and discussed in a few publications, but it has never been fully documented. Reported here is the first complete inventory of ca. 450 rock art "figures," using an EDM-based mapping/database system, digital photography, image enhancement and drawing software, etc. Most northern Plains manufacturing techniques, styles and motifs occur at this major site, but it also includes some very large individual figures, unusually large and complex interwoven panels, and other unique aspects.

Rehren, Thilo [69] *see Cohen, Claire*

**Reiser, Christine (Brown University)**

[5] *Safeguarding the "Mint:" Patterns of Wampum Production and Site Utilization at a 17th Century Native Palisade in Long Island Sound*

Constructed in the seventeenth century in the context of marked regional tension, Fort Island is a Native fortified site on Block Island, Rhode Island distinguished for evidence of wampum production and participation in Native, Dutch, and English colonial trade. Patterns of wampum production are identified and articulated with interpretations of settlement and defense strategies in an effort to situate the site in a regional and historical context of similar Long Island Sound sites. The findings suggest a highly selective use of space and activity that may have served to spatially distinguish evolving colonial spheres of exchange, social networks, and alliance.

**Reitz, Elizabeth (University of Georgia) and Quitmyer, Irvy (University of Florida)**

[8] *Evidence for Domestic Use of Marine Resources between AD 300 and 1500 on the Georgia and Florida Coasts, USA*

Some archaeologists argue that mounds composed primarily of shell and fish bone are funerary deposits. Others argue they are accumulations of domestic food remains. Using data from three sites on the Florida and Georgia coasts, USA, we provide evidence that these sites are the consequence of accumulated food remains between AD 300 and 1500. Vertebrate and invertebrate remains from these three coastal sites contain similar suites of estuarine animals, most of which do not conform to proposed criteria defining ritual, sacred, or unusual foods. Instead, these materials contain evidence for economic adaptations to environmental changes during the Holocene.

Renner, Valerie [198] *see Gallison, Jim*; [198] *see Ramirez, Nicole*

Reppert, Phillip [22] *see Garrison, Ervan*

**Rexroth, Allison (Denver University) and Adovasio, J.M. (Mercyhurst Archaeological Institute)**

[242] *Excavation, Conservation, and Analysis of Perishable Material Recovered from the Archaeological Testing of Mound A (40HR0007), Shiloh National Military Park*  
Excavations at Shiloh National Military Park Mound A (40HR0007) have yielded multiple carbonized perishable plant-fiber constructions from the Mississippian period. The preliminary stabilization and exposure of these rare and unique artifacts, utilizing the experimental chemical cyclododecane, as well as their conservation and initial analysis are discussed along with suggestions for future study.

**Reyes, Liliana Carla (Instituto Nacional de Antropología e Historia) and Winter, Marcus (Instituto Nacional de Antropología e Historia)**

[86] *El Preclásico Temprano en el Istmo Sur: Excavaciones en Barrio Tepalcate, Ixtepec, Oaxaca*

En 2005 realizamos exploraciones en el sitio Barrio Tepalcate, Ixtepec, Oaxaca, sobre el lado derecho del río Los Perros, unos 16 km arriba de Laguna Zope. La ocupación del Preclásico Temprano (1200-900 A.E.C.) en esta aldea está representada por restos de casas de bajareque, hornos, vasijas y figurillas de barro, y artefactos líticos. Describimos la cerámica con atención especial a distinciones entre vasijas local y de importación. Distinguimos los motivos decorativos estilo olmeca y los comparamos con material de la zona del Golfo y de los altos de Oaxaca.

**Reynolds, Matthew D. (Arkansas Archeological Survey) and Thompson, Victor D. (SRS/SCIAA)**

[22] *Electrical Imaging at the Sapelo Island Shell Ring Complex*

The Late Archaic Sapelo Island Shell Ring complex (9Mc23) consists of three large ring-shaped shell deposits. A series of electrical resistivity pseudosections were collected over the smallest of these, Ring 3, in an effort to create a three-dimensional model of the shell and soil distribution within the feature. Additional data were provided through limited excavation, probing, and topographic mapping. This model is compared to existing theoretical and empirical descriptions of shell ring construction in an effort to better understand the formation and function of shell rings along the southeastern U.S. coast.

**Rhode, Matthew (University of Missouri-Columbia)**

[132] *Using Muscle Markers to Predict Subsistence in Prehistoric South America*

Archaeologically determined subsistence patterns often lack adequate independent verification. Fortunately, human skeletal remains provide a critical source of independent confirmation through analysis of muscular response to habitual activity. Specifically, the developmental patterning of muscle, tendon, and ligament origins and insertions can be used to characterize subsistence. Here 167 Peruvian skeletons from six sites, possessing well-defined subsistence patterns were analyzed using discriminant analysis. Results indicate that fishing and farming populations are distinguishable for 78% of individuals. Test cases fitted to the model where mode of subsistence was less certain provide valuable insights into possible mixed subsistence practices.

**Rice, Don S. (Southern Illinois University Carbondale)** [87] *Discussant*; [49] *see Pugh, Timothy*

**Rice, Prudence (SIUC)** [26] *Discussant*; [49] *see Pugh, Timothy*

**Rice-Snow, Scott (Dept. of Geology, Ball State University), Kinder, Melissa (Dept. of Geology and Geophysics, University of Utah), Castor, Andrew (Dept. of Geology and Geophysics, University of Utah), Grigsby, Jeffry (Dept. of Geology, Ball State University)**

[145] *Boulder Lithology Survey, Tibes Civic-Ceremonial Site, Puerto Rico*

Ceremonial structures at the Tibes site are made of rounded boulders with diverse lithology; the adjacent Portugues River bed is a likely material source. We censused locations, lithologies, and sizes of approximately 5500 boulders in seven structures, and more than 600 river bed boulders. Lithologies almost entirely match, but percent representations differ significantly between structures and river bed, and among various structures. Possible explanations include natural river bed variation through time and cultural selection of material. Approximately 50 of the boulders in structures are calcareous sandstones obtained outside the river basin: initial petrologic sampling has not identified a nearby source.

**Richard, Francois (Syracuse University)**

[169] *Political-economic Change and Landscape Transformations in Senegambia during the Atlantic Era: A Preliminary View from the Siin (Senegal)*

The Atlantic era marks a turbulent period in the history of Senegambia, defined by dramatic transformations in local socio-economic conditions. Historical understanding of these "global encounters" often derives from the better documented polities that were closely involved with European commerce. While generally less tractable, the historical past of more modest participants nevertheless offers alternative perspectives into Atlantic exchanges. The small coastal kingdom of Siin (Senegal) has been the focus of recent archaeological work aimed at examining long-term change in regional political-economy. Combining multiple sources, research in Siin provides preliminary insights on the impact of global forces on Senegambian social landscapes.

**Richards, Heather (University of New Mexico), Ahlfeldt, Jennifer (University of New Mexico) and Ackley, Laura (University of California, Berkeley)**

[148] *Representing Maya Architecture: Techniques for Research and Education*

Educators, professionals, and other scholars use many, varied media to portray Maya Architecture. Traditional methods of representation typically include text, drawings, and photographs, which serve as efficient teaching tools; however, they often deprive students and researchers of a sense of space. Static, sculpted 3D models provide a sense of mass and space, yet create a top-down, external perspective that lacks a sense of place. Virtual 3D models, in contrast, facilitate experiential learning via virtual exploration and alternative perspectives. These multi-media integrated within an internet-based database of the architecture of the Ancient Americas serve as an invaluable tool for research and education.

**Richards, Heather [148] see Arias, Veronica**

**Richards, John (University of Wisconsin-Milwaukee)**

[35] *Viewing the Ruins: The Early Documentary History of Aztalan*

This paper reviews the early narrative accounts of the discovery of the Aztalan site in southeast Wisconsin. First person accounts of Midwestern archaeological sites that describe a site's condition prior to historic and modern disturbances are rare. Yet when available, these narratives are useful as indicators of the pre-settlement integrity of site features and deposits. Moreover, early reports can sometimes help to connect the initial site discovery process with current archaeological problems as well as emerging discourse on the role of the public in archaeological inquiry.

**Richards, Julian (Archaeological Data Service, University of York) [184] Discussant****Richards, Michael (Max Planck Institute for Evolutionary Anthropology), Beattie, Owen (Department of Anthropology, University of Alberta), Greer, Sheila (Champagne and Aishihik First Nations - Heritage, Special Projects), Corr, Lorna (School of Chemist**

[132] *Radiocarbon Dating and Dietary Stable Isotope Analysis of Kwaday Dän Ts'inchí*

We present the results of AMS radiocarbon dating and isotopic analysis of the frozen human remains named Kwaday Dän Ts'inchí recovered from a high elevation glacier in Northwest British Columbia, Canada in 1999. The isotopic analysis indicated that Kwaday Dän Ts'inchí had a strongly marine diet, which was unexpected due to the find location; however, hair and bone cholesterol isotopic values showed a dietary shift to terrestrial foods in the year before death. The dating evidence was not straightforward, but we conclude that Kwaday Dän Ts'inchí dates to between 1670 and 1850 cal. AD.

**Richards, Patricia (University of Wisconsin -Milwaukee)**

[211] *And Gave Them for the Potter's Field*

This paper argues that the materials recovered from the Milwaukee County Poor Farm Cemetery cannot be viewed as a homogenous analytical unit. The conflict inherent in a public policy intended to provide a decent burial while simultaneously discouraging utilization of the service can only be understood within the larger context of poorhouse operation in the U.S. during the late nineteenth and early twentieth century. This study argues that meaningful interpretation of this cemetery must be conducted with reference to two separate but related perspectives: the role of human agency and the role of prevailing social structures within which such cemeteries operated.

**Richardson, James, III [53] see Malpass, Michael**



**Richardson, Laura (Kenyon--Proyecto Valle de Cacaúlapa)**

[234] *Craft Production within an Agrestic Center: Implications for an Ancient Political Economy of Copper Processing at El Coyote, NW Honduras*

Excavations during 2004 on the SW edge of the agrestic center of El Coyote in the lower Cacaúlapa valley, NW Honduras revealed clear signs of copper processing in the form of furnaces, a slag heap, a water table for sorting copper prills from slag, and an ore-grinding area. This paper summarizes that evidence but concentrates on dating the remains, describing activities associated with copper working here, and comparing the El Coyote findings with signs of metallurgy elsewhere in S Mesoamerica. The importance of craft working within the political economies of ancient agrestic centers is considered.

**Richardson III, James (Carnegie Museum/University of Pittsburgh)**

[53] *The Missing Link: Drowned Preceramic Sites on the Peruvian Continental Shelf*

There has been little speculation on the significance of drowned preceramic sites on the Peruvian continental shelf to our understanding of cultural development on the coast prior to 5,000 BP. The future discovery of drowned Early and Middle Preceramic sites may well hold the key to the intensity of early maritime adaptations and the rise of Later Preceramic temple centers. Temple centers appear to "burst" upon the landscape with little evidence for the developments that led up to the formation of these monumental sites. Underwater research is the key to answering this question.

[8] see Sandweiss, Dan

**Richman, Jennifer (Corps of Engineers, Northwestern Division)**

[46] *Contemporary Application of ARPA*

Since its enactment, ARPA has evolved into a far-reaching preservation management tool. It is used by collection managers for curation, scientists for research, educators for public outreach, and federal prosecutors for enforcement. This paper explores the complexity of the contemporary application of ARPA.

**Richter, Daniel (MPI Evolutionary Anthropology, Germany), LeTensorer, Jean-Marie (IPNA, University Basel, Switzerland), Wojtczak, Dorothea (IPNA, University Basel, Switzerland), Rink, Jack (McMaster University, Canada) and Schwarcz, Henry (McMaster University)**

[162] *Thermoluminescence Dates for the Hummalian Layers at Ain Hummal (El Kowm, Syria)*

The long stratigraphy at Ain Hummal (Syria) is comprised of more than 40 archaeological layers, spanning from the Lower to the Upper Palaeolithic. The site is the type locality for the technocomplex of the Hummalian. A long term project by the IPNA, Bale, Switzerland is aimed towards a better understanding of the site formation processes and the uncovering of this exceptionally long stratigraphy. A dating project using U-series on travertine, Thermoluminescence (TL) on heated flint and ESR on teeth is under way. First results with TL dating of heated flint from the Hummalian layers will be presented.

Riciputi, Lee [44] see Fayek, Mostafa

**Rick, John (Stanford University) [175] Discussant****Rick, John (Stanford University) and Contreras, Daniel (Stanford University)**

[113] *Natural Sources of Power and Emerging Authority at Chavin de Huantar*

Natural elements were regarded as sources of sacred power throughout Andean prehistory, and proximity to such elements has often been used to explain Andean monumental centers. Recent Andean history demonstrates that such natural elements are not simply symbolically potent, but also powerful-and threatening-in very concrete ways. In the case of the Formative monumental center of Chavin de Huantar, local environmental elements, and the risks they entail, suggest that emergent elites drew upon the power inherent in the landscape as a source of religious authority. The pattern of construction and the engineering strategies of the site suggest conscious mobilization of environmental sources of power.

**Rick, Torben (Southern Methodist University)**

[8] *Shell Scatters, Middens, and Mounds: Method and Theory in Southern California Coastal Archaeology*

Southern California contains one of the longest coastal archaeological records in the Americas. Archaeological sites, ranging from large villages with dense faunal remains to relatively ephemeral shell scatters, are found throughout the mainland coast and offshore islands. These

sites provide rich and varied accounts of the history and lifeways of North American coastal peoples. In this paper, I provide an analysis and overview of southern California coastal archaeology, demonstrating how traditional midden analysis and stable isotope research can inform the study of historical ecology, cultural complexity, and the antiquity and evolution of maritime adaptations.

[8] *see* Erlandson, Jon; [89] *see* Braje, Todd

Riddle, Jennifer [132] *see* Madden, Gwyn

Ridl, Jakub [223] *see* Sosna, Daniel

Riederer, Josef [4] *see* Wagner, Ursel

Riefkohl, Priscilla (USDA FS Caribbean NF) and Walker, Jeff (USDA FS Caribbean NF)

[176] *Out of the Woods: 25 Years of Forest Service Heritage Management in Puerto Rico*  
Since 1981 the USDA Forest Service in Puerto Rico has actively protected and managed cultural resources on National Forest lands. Over the last ten years the Forest Service has also provided archaeological expertise to other federal and state agencies. We will highlight the Forest Service's accomplishments in these areas and summarize the archaeological discoveries made to date. This will lead to a discussion on cultural resource management practices undertaken by the agency, and provide insights into the successes, failures, and future of heritage resource management by the Forest Service in Puerto Rico.

Riel-Salvatore, Julien (Arizona State University)

[162] *The Place of the Uluzzian in the Middle-Upper Paleolithic Transition in Italy*  
Despite being frequently mentioned in the debates concerning the Middle-Upper Paleolithic transition, the Uluzzian remains a poorly understood technocomplex. This paper presents a discussion of new dates for the Uluzzian in order to position it chronologically in relation to other contemporary Eurasian technocomplexes. These data are complemented with behavioral information derived from detailed lithic analysis of three geographical clusters of Uluzzian assemblages, in order to highlight both its internal variability and its technologically defining traits. This dual reassessment permits a critical discussion of the Uluzzian's place in debates about modern human origins in western Eurasia as a whole.

[158] *see* Elliott, Michelle

Rieth, Christina B. (New York State Museum) and Saputo, Derek (University at Albany, SUNY)

[172] *Archaeometric Analysis of Ceramic Vessels from the Pethick Site, Schoharie County, New York*

X-ray fluorescence analysis was used to assess the provenance of manufacture of ceramic vessels recovered from the Early and Late Woodland occupations at the multi-component Pethick site in Schoharie County, New York. The compositional profiles of ceramic vessels were recorded and compared with the profiles of known clays in the valley. The results of this project suggest that the vessels from this site form several different clay groups with most vessels manufactured from local clays. Some non-locally manufactured pots were also identified and may represent interaction with neighboring groups.

Rieth, Christina B. [172] *see* Rafferty, Sean M.

Riggs, Michael S. [97] *see* Latham, Mark

Righter, Elizabeth (Archaeolink/Formerly V Is SHPO Archaeologist)

[176] *U.S. Virgins Island Archaeology and the National Historic Preservation Act*  
In the US Virgin Islands, following implementation of the National Historic Preservation Act of 1966, archaeological listings on the US Virgin Islands Inventory of Historic Places increased significantly. Knowledge of site types and distributions also improved. This paper documents those changes related to initiation of the Section 106 process and also discusses what has been learned about the nature of some Virgin Islands cultural resources in relation to sway strategies for their identification and evaluation.

Rights-Murtough, Lucille (SEFAS)

[249] *SEFAS Volunteers in South Florida*

While professional archaeologists work on their projects, local volunteers assist them, connecting

the professionals with nearby communities. At the Ten Mile Creek data recovery excavations, SEFAS volunteers assisted with shovel test pits, excavations, and screening. Volunteers also conducted classroom presentations, on-site tours, and local historical research. Volunteer work at neighboring sites are also discussed, including adult leadership classes, grant applications, publicity, and hurricane discoveries.

**Rihuete Herrada, Cristina (Museu Arqueològic de Son Fornés)**

[82] *Taphonomy and Funerary Practice in Collective Cemeteries. A Prehistoric Case from Menorca (Balearic Islands, Spain)*

Taphonomic issues are a major aspect of archaeological research when dealing with collective burials. Usually the lack of any apparent order or organization among disarticulated human remains is interpreted in terms of secondary depositions (ossarium). However, the explanation might not be that simple since taphonomic changes of a very varied nature (i.e., body decay, animal activity, atmospheric conditions, ritual practices) are responsible for the formation of the archaeological record. A case study from a prehistoric Spanish cemetery (1450-800 BC) is presented here as an illustration of the kind of questions that need to be approached.

**Ringberg, Jennifer [212]** see Billman, Brian

**Ringle, William (Davidson College), Bey, George (Millsaps College) and Gallareta N., Tomas (Centro Yucatan-INAH)**

[49] *Northern Maya Urbanism: Plains to Puuc*

This paper surveys the process of urbanization in the northern Maya area from Late Preclassic precursors to the close of the Classic period. We attempt to sort out patterning at several levels of analysis: forms of elite and non-elite domestic architecture, the distribution of organizational features (causeways, plazas), and types of architectural groupings. We also gather information on smaller communities to assess which traits, if any, are peculiar to large centers, which are regionally specific, and which are shared with sites elsewhere in the Maya area. We also assess the implications of these data for political organization and demography.

**Ringle, William [177]** see Smith, J. Gregory; **[207]** see May Ciau, Rossana; **[221]** see Bey, George

**Rink, Jack [162]** see Richter, Daniel

**Ríos-Fuentes, Joram [158]** see McClung de Tapia, Emily

**Rissolo, Dominique (San Diego State University) [64]** *Discussant*

**Rissolo, Dominique (San Diego State University) and Glover, Jeffrey B. (University of California, Riverside)**

[33] *A Preliminary Investigation of the Ancient Maya Port of Vista Alegre, Quintana Roo, Mexico*

The site of Vista Alegre is located on a mangrove-shrouded island along the north coast of Quintana Roo. Recent archaeological investigations provide new insights into the relationship between this ancient inner-coastal port and its supporting polities as well as its role in circum-peninsular trade during the Terminal Classic to Early Postclassic Periods. On-going research efforts in northern Quintana Roo allow for the integration of Vista Alegre into broader studies concerning regional economic and political organization. The unique and strategic location of the port relative to both coastal and inland waterways likely resulted in its affiliation with powerful inter-regional systems.

**Ristevski, John (University of California, Berkeley)**

[62] *Digital Media Management in the Field: A Mobile Metadata Recording System*

This project is focused on the development of a database system and associated metadata schema to manage the collection of digital media at cultural heritage sites. This research has included the development of a mobile metadata entry system (MMES) to facilitate the real-time entry of metadata in the field. The system allows the real time recording of metadata relating to a wide range of digital artifacts including digital photography, video, survey data and long and close range laser scan data. It has been deployed at the sites of Mesa Verde and Chavin de Huantar, Peru.

**Ristevski, John [69]** see Fassero, Anthony

**Ritzman, Terrence [162]** *see Glantz, Michelle*

**Rivas, Santiago (Instituto Nacional de Cultura de Peru), Oyuela-Caycedo, Augusto (University of Florida), Panaifo, Mónica (Instituto Nacional de Cultura de Peru) and Zimmerman, Andrew (University of Florida)**

[90] *Quistococha: An Inquiry to the Historical Ecology of the Upper Amazon River*

The archaeological site of Quistococha permits to evaluate the formation of terra pretas in the Upper Amazon river system. Another objective of the research was to understand the human agency of the occupants of quistococha in relation to the natural resources of the terra firma. The site revealed a previously unknown, new pottery complex. This site gives us for the first time information on the Formative period of the Upper Amazon region and in particular of the flood plain and terra firme of Iquitos.

**Rivera, Claudia [77]** *see McAndrews, Timothy*

**Rivera, Mario**

[116] *Early Villages in the Atacama Desert (800 B.C. - A.D. 100)*

Evidence of village development throughout the Atacama Desert in Northern Chile is presented. The research done in connection with a dozen of settlement reveals the increasing complexity that took place in this harsh environment between 800 BC and the first decades AD. Water resources played an important role for agriculture purposes, as a means of subsistence, and as a unified/unifying component from an ideological viewpoint. Connections to specific developments of the Circum-Titica area are envisioned and the possibility of a pan-south Andean ideology of pre-Tiwanaku data is also explored.

**Rivera Collazo, Isabel**

[161] *The Ships of El Morro: Stylistic Analysis of Nautical Representations among Historical Graffiti*

The walls of The Spanish Defense System of San Juan are covered with ancient graffiti, which have been dated between the XVIII-XIX centuries. Only on the San Felipe del Morro fort, research has identified over 170 figurative graffiti, the large majority of which consist of nautical representations, such as frigates, sloops, schooners, boats, anchors and others. The present paper analyses the ship styles identified at El Morro, along with a brief discussion of their meaning and the ethnographic implications of graffiti drawing.

**Rivera, Esq., DeAnna M. Sarobei (UCLA Law School)**

[123] *Taíno, Puerto Rico, and the United States: A Brief Legal History of Three Nations*

Professor Rivera's presentation will provide a description of the legal relationships between the Taíno peoples, Puerto Rico, and the United States. Her talk will begin with the specious international law rationale behind Spanish conquest of the Island and follow a condensed chronology to the United States' takeover at the signing of the Treat of Paris. Her presentation will incorporate a discussion of the resulting relationships between the three communities: Taíno, Puerto Rican and American. Finally, Professor Rivera will share some of the consequent legal obstacles facing the Taíno with regard to their cultural/historic preservation and contemporary cultural resource management.

**Rivera-Fontán, Juan A. (Instituto de Cultura Puertorriquena) and Oliver, Jose R. (Institute of Archaeology)**

[176] *The Bateyes de Vivi Project: Integrating Puerto Rican Heritage, Public Archaeology and Academic Research Toward a Common Goal*

This paper evaluates the formal collaboration between the academic-led Utuado-Caguana Archaeological Project, the Instituto de Cultura Puertorriquena and the Oficina Estatal de Conservación Histórica-SHPO. It analyzes how this international and inter-institutional collaborative enterprise has impacted the quality and depth of archaeological research in Puerto Rico, focusing on the results of the work conducted at the Taino civic-ceremonial "center" Bateyes de Vivi. It addresses issues on how to best retrieve data required for understanding the nature, function and socio-political implications of Vivi and the heritage priority on the conservation and preservation of a site in the process of being listed for nomination to the NRHP.

**Rizvi, Uzma (University of Pennsylvania) [11]** *Discussant*

**Roache, Amy [5]** *see Koster, Renee*

**Robb, John (Cambridge University)**

[111] *The Incomplete Primate: The Body and Material Culture*

This paper explores the relations between the body and material culture. As forms of action, embodiment and material engagement pose parallel theoretical challenges, bridging the subject-object/ mind-material dichotomy and raising the issue of negotiable and bidirectional agency between humans and non-humans. However, the body and material culture are also fundamentally complementary and inextricable from each other. This paper explores the role of material culture as an obligatory and inescapable extension of the sensing and acting body through discussion of tools, adornment, human representations and the built environment drawn from Neolithic Europe.

**Robb, John (Cambridge University) [60]** *Discussant*

**Robbins, John (Southern Methodist University)**

[79] *Isotopic Analyses on Shellfish from the Channel Islands, California: Implications for Marine Foraging Strategies and Environmental Change*

Red abalone middens, a California Channel Islands site type with a high proportion of red abalone shells, contain valuable information on human subsistence and environmental change. These deposits are often preceded, and followed, by mussel, black abalone, and sea urchin strata. Researchers have debated whether this shift in species abundance is the product of environmental change, human overpredation, or a combination of variables. Isotopic analysis of California mussel and red abalone shells from several sites suggests that environmental change had limited effects on abalone location and indicates that people probably dove for most of the red abalone.

**Roberts, Charlotte [141]** *see Hughes, Susan S.*

**Roberts, Erika (University of Florida)**

[31] *Digging Through Discarded Identity: Comparative Archaeological Investigations at Whitney Plantation, Louisiana*

The purpose of this paper is two-fold. First, I discuss the results from archaeological investigations around a kitchen and an overseer's house at Whitney plantation in Wallace, Louisiana. It is my belief that the artifacts collected are a reflection of the active consumer choices of this French Creole family, the Haydel's. The materials chosen by the Haydel's were a manifestation of their consumer identity. In the second part of this paper, I compare the data from Whitney plantation to similar plantations (temporally and geographically) in order to understand how the identity of the Haydel's equates with the broader plantation landscape.

**Roberts, Michael (John Milner Associates) [127]** *Discussant*

**Robertson, David A. (Archaeological Services Inc.)**

[241] *Glimpsed through the Smoke: A Survey of Two-dimensional Figurative Imagery on Late Woodland Smoking Pipes from Southern Ontario*

Northeastern smoking pipes have long been recognized as media of great artistic accomplishment and symbolic expression. Many of the symbols on pipes, whether they be clan totems or cosmological figures, have counterparts in rock art, Midewiwin scrolls, or other forms of eastern Woodlands graphic art. Beginning with a small number of pipes recovered in the past ten years from sites located on the northern frontier of the Iroquoian and Algonquian territories of southern Ontario, this paper presents a review of two-dimensional imagery that was deemed suitable for reproduction or display, whatever the context in which this may have occurred.

**Robertson, Ian (Stanford University)**

[49] *The Form and Nature of Social Districts in Teotihuacan*

This paper is concerned with the internal socio-spatial structure of ancient Teotihuacan. Its goal is to characterize the nature and form of intermediate-level social districts that emerged from the interplay of large-scale, top-down planning and small-scale planning carried out at the level of neighbourhoods by individuals and encompassing social groups. Analyses of artifactual and architectural data are used to identify these districts, which are related in turn to the historical nature of Teotihuacan's growth, and changing social concerns of the city's residents.

**Robertson, J. David [44]** *see Popelka-Filcoff, Rachel*

**Robins, Michael [106]** *see Geib, Phil*

**Robinson, David (University of Cambridge), Sturt, Fraser (University of Southampton), Reeves, Dan (Rock Art Documentation Group) and Bury, Rick (Rock Art Documentation Group)**

[196] *Rock Art and the Temporality of Physical Places: Advancing Applications of GIS and Four-Dimensional Modelling*

Advances in digital technologies afford rock-art researchers far greater documentary possibilities, allowing innovative research and restoration approaches. This paper details advantages in employing various digital and GIS techniques through the authors' recent documentation/ research efforts. This includes 3-Dimensional models of the physical terrain encompassing several South-central California rock-art locales plus examples of digital layering techniques employed within the same region. We propose that by adding GIS landscape modelling with timeframe analyses, 4-Dimensional modelling can more comprehensively examine dynamics of human action at rock-art locales. Further, we propose how these techniques can be applied for the virtual restoration of damaged rock-art panels.

**Robinson, Eugenia (Montgomery College)**

[126] *International Elite Symbols at Late Postclassic, La Casa de las Golondrinas, Guatemala*  
La Casa de las Golondrinas is a sacred place located by volcanoes and water sources in the Kaqchikel zone of Mesoamerica. Archaeological materials recovered by the Proyecto Arqueológico del Área Kaqchikel show that the site was used from 1000 BC through the Spanish Conquest. Some of the site's more than 225 paintings indicate that new identities with Mexicanized elites formed during the Late Postclassic period that included this rural location in an international social construct. This paper explores the efficacy of the data classes of (1) sacred landscape, (2) ethnohistory, and (3) painted symbols in the interpretation of the political and social identities of members of the Kaqchikel state.

**Robinson, Mark [164]** *see McKillop, Heather*

**Robles, Amparo [140]** *see Uruñuela, Gabriela*

**Robles, Fernando [177]** *see Andrews, Anthony*

**Rochette, Erick (Penn State University)**

[3] *GIS Analysis of Prehispanic Jade Artifact Production in the Middle Motagua Valley, Guatemala*

Objects crafted from jadeite were highly valued prestige goods and played a vital part in the political economies of all prehispanic Mesoamerican civilizations. Despite their importance, we know little about how their production was organized. Recent survey data from the Middle Motagua Valley, Guatemala will be analyzed using a GIS to better understand the organization of the stages of jadeite artifact production (from production debitage to finished products). Spatial analyses coupled with published survey data from neighboring regions may shed light on jade exploitation patterns beginning with initial extraction from jade sources to the movement jade across the Maya landscape.

**Rockman, Marcy (UCLA/Statistical Research, Inc.)**

[247] *Ethnoarchaeology in Gas Pump Land: Recent Changes in Fuel Prices in Relation to the Landscape Learning Model*

You know you've done it—debated driving extra distance to a cheaper gas station. Is it worth your time? Worth the extra gas? How efficient is your car anyway? Changes in fuel prices and awareness of fuel supply over recent years have raised these questions to a national-level phenomenon. While the outcome is uncertain, the process is an opportunity to study the flow of fuel-related information and thresholds of personal and community change, and derive from them new data on the rate and means by which individuals and groups modify their locational, liminational, and social knowledge of critical natural resources.

**Rockmore, Matthew (Pennsylvania State University)**

[25] *Long Distance Exchange and the Maya "Collapse:" Shifting Patterns in the Central Petén from Classic to Postclassic*

Recent research at the Late Classic through Early Postclassic hamlet of San Jeronimo II on the western shore of Lake Petén-Itzá has identified several effects of the larger regional collapse on the extra-regional contacts of the remaining population. This paper postulates a gradual decay of existing routes in the Terminal Classic and the eventual development of new patterns of exchange along with an increased dependence on local substitutes and heavy reuse of irreplaceable items in the Early Postclassic. This paper supplements existing studies of Classic and Postclassic centers of the region with data from a less-privileged rural site.

**Roddick, Andrew (UC Berkeley) and Hastorf, Christine (UC Berkeley)**

[54] *The Memory of Ancestors: Placement and Place in the Formative Titicaca Basin*

Based on more than a decade of research on the Taraco Peninsula, we discuss the role of memory, tradition and ancestral participation from the earliest settled communities to the founding and influence of the Tiwanaku order. We examine the shifting role of social memory vis-à-vis more consistent practices of public ceremonies and pottery and food production. While the Chiripa phases give a sense of familial community, making a place for the ancestors on the landscape as people settle, the Tiwanaku phases suggest stronger lineage commemoration, with families acting as gravitational forces in the burgeoning political developments.

**Rodriguez, Angel**

[70] *Archaeoastronomy at the Caguana Ceremonial Center, Utuado, Puerto Rico*

During 1915, while working for the New York Academy of Science, Franz Boas visited the island of Puerto Rico with a group of anthropologists. Their aim was to study the history and prehistory of the island. A large archaeological site drew their attention and as a result, Alden J. Mason and Robert T. Atken surveyed the site. The site was called Capá because it was covered with trees of capá prieto (*Cordia alliodora*). Alden Mason found 13 plazas or ballcourts and completed an archaeological study of this site. Twelve of these structures are square or rectangular in shape. One is circular. The Caguana site has been dated between 1200 to 1500 BC and the ceramic work associated to it belongs to the Taino culture, and is located in the municipality of Utuado in the central mountain region of Puerto Rico. The compass bearings, magnetic declination and the slope of the horizon of all the plazas were used to find significant alignments with astronomical events. Results indicate that the plazas are aligned toward relevant astronomical events during certain dates of the year.

**Rodriguez, Marcianna (Smithsonian Institution, NMNH, Archaeobiology Program) and Barajas-Morales, Josefina (IIB/UNAM)**

[158] *Processing, Preserving and Identifying Water-Logged Botanical Remains from San Lorenzo Tenochtitlan, Veracruz*

In the macroremains laboratory of the Proyecto Arqueológico San Lorenzo Tenochtitlan (PASLT), the processing, preserving and identifying of water-logged botanical remains from the Olmec site of San Lorenzo Tenochtitlan has presented special challenges to paleoethnobotanical specialists. To date, several plant families have been identified, thus providing significant direct sources of paleoethnobotanical data which may be confidently used to help us understand and interpret the interaction of the ancient Mesoamerican inhabitants with their vegetation communities, both natural and cultivated. In this paper we specifically discuss the methodological challenges and rewards of working with these unique botanical remains.

**Rodriguez, Roberto (Museo Montane, Cuba) and Pagan, Jaime (UNAM, Mexico)**

[16] *Primeras Evidencias Directas del Uso de Plantas por los Grupos Agroalfareros de Cuba Suroriental*

Se presentan los resultados del análisis de residuos de plantas en un fragmento de burren del sitio Macambo II de la porción suroriental de la provincia de Guantánamo, Cuba. De la muestra se obtuvieron granulos de almidon de plantas como yautia, batata, maiz y leguminosas. Se discute acerca de las posibles vias de preservacion en un fragmento de un artefacto cerámico que usualmente se adjudica a la preparacion del casabe, segun las fuentes historicas. Se describen las posibles estrategias de subsistencia de esta comunidad y se discute acerca del uso del burren como artefacto multiproposito.

**Rodríguez, Gabriel De La Luz (University of Puerto Rico, Río Piedras)**

[123] *Taíno Romanticism: Toward a Genealogy of the Representation of the "Indigenous" in 19th and 20th Century Puerto Rican Letters*

The noble "Taíno" emerged in Puerto Rican archaeological and ethnohistorical discourse during the 19th century. Its initial formulations can be traced to the work of nationalist Creole intellectuals who used native symbols to create a sense of national identity in contradistinction to colonial power. This narrative (idealized bucolic "Taíno" or defiant, brave anti-colonial warrior) became common in Puerto Rican literature. I will examine these figures in the key writers of the epoch such as Ramón Emeterio Betances, Eugenio María de Hostos, Alejandro Tapia y Rivera, Daniel Rivera, Cayetano Coll y Toste, and Juan Antonio Corretjer.

**Rodríguez, Jorge [166]** *see Gutiérrez, Madeliz*

**Rodríguez Campero, Omar (Proyecto Arqueológico Calakmul, México)**

[208] *El Simbolismo de la Montaña en la Arquitectura Preclásica en Calakmul*

Las recientes investigaciones realizadas en la región de las tierras bajas mayas han aportado nuevos elementos para la interpretación del simbolismo que tuvo la montaña(witz) con respecto a la arquitectura monumental que produjo la sociedad en la segunda mitad del periodo Preclásico. La presente ponencia caracterizará y analizará los edificios correspondientes a este periodo en la Antigua Ciudad Maya de Calakmul contextualizándolos con respecto a lo que acontece en otros sitios como Uuxactún, Holmul o El Mirador.

**Rodríguez López, Isabel (Escuela Nacional de Antropología e Historia), Borejsza, Aleksander (Archaeology Program, University of California, Los Angeles) and Morett Alatorre, Luis (Museo Nacional de Agricultura, Universidad Autónoma Chapingo)**

[80] *El Uso de Truncocónicas Formativas Como Graneros: Un Acercamiento Experimental*

Se afirma que la función primaria de los pozos truncocónicos del Formativo mesoamericano fue almacenar grano. Evaluamos su utilidad para tal propósito guardando maíz en réplicas equipadas con termómetros e higrómetros con registradores. El subsuelo endurecido y la reducida boca resultan efectivos para aislar el contenido de cambios bruscos en las condiciones meteorológicas y protegerlo de roedores, pero la conservación del grano se dificulta por la alta temperatura (ca. 20°C), la falta de ventilación, la humedad de las paredes e insectos acarreados con la cosecha. El almacenamiento a corto plazo parece posible, pero requeriría de otros ajustes tecnológicos.

The bell-shaped pits common in Formative Mesoamerica are claimed to have served to store grain at the beginning of their use-lives. Their adequacy for this purpose is assessed in replicas filled with maize and instrumented with data loggers recording temperature and humidity. The indurated subsoil and constricted mouth prove effective for isolating the contents from sudden changes in outside weather and protecting them from rodents, but the preservation of grain is made difficult by elevated temperature (ca. 20°C), lack of ventilation, moist walls and insects accidentally introduced with the crop. Short-term storage seems possible, but would require other technological adjustments.

**Rodriguez Martinez, Carmen (Instituto de Antropologia - Universidad Veracruzana) [136]**

*Discussant*

**Rodriguez Martinez, Carmen (Instituto de Antropologia - Universidad Veracruzana) and Ortiz Ceballos, Ponciano (Instituto de Antropologia - Universidad Veracruzana)**

[86] *A la Sombra de San Lorenzo: Sitios del Formativo Temprano en la Cuenca Baja del Coatzaicalcos*

El proyecto Manatí en su recorrido, localizo varios sitios y eligió por sus objetivos, efectuar excavaciones en aquellos que mostraban ocupación del Formativo Temprano. Estos fueron: El Macayal, La Merced, La Abundancia y el Paraíso. Estos sitios son diferentes en su función y organización interna, pero corresponden a la misma época. Presentamos una correlación de los artefactos en especial la cerámica, las figurillas y materiales importados como el jade, las serpentinillas y la obsidiana; los comparamos con San Lorenzo, lo ampliamos con sitios foráneos de Chiapas y el altiplano, para buscar correlaciones interculturales en sus diferentes niveles.



**Rodríguez Meléndez, Yasha (PR-SHPO)**[161] *Bateyes Revisited: Reconsidering their Socio-Political Role*

Caribbean bateyes are frequently referred to as ceremonial and ritualistic in nature. This paper explores the socio-political role of bateyes through the analysis of remnants of activity. The results generated significant observations highlighting the variability between sites with bateyes. At one of the sites, archaeological materials and features evidence activities associated to daily chores occurring onsite, such as fishing, cooking, manufacturing of vessels, retouching and re-working of tools. The data indicates that some batey enclosures were located within habitational areas and had a more secular socio-political role. The study also demonstrates that impacted sites should be targeted for study.

**Rodríguez Ramos, Reniel (University of Florida - Gainesville)**[1] *Vertical and Horizontal Interactions in the Precolonial Caribbean*

The Antilles have traditionally been perceived as a marginal space in the Circum-Caribbean. However, a review of the evidence suggests the possibility of the existence of interaction spheres between the inhabitants of the West Indies and those from surrounding continental regions, particularly the Istmo-Colombian area and Southeastern United States. This scant but important evidence is presented as it illustrates the need of paying closer attention to the operation of such macroregional interaction circuits, which could have been of much more importance in the vertical and horizontal configuration of the cultures that emerged and developed in such areas than previously suggested.

**Rodríguez Ramos, Reniel (University of Florida), Oliver, José R. (Institute of Archaeology, University College London, UK) and Torres, Joshua M. (University of Florida)**[84] *Time: The Forgotten Variable in Caribbean Archaeology*

Time has been the most overlooked and misused archaeological dimension in West Indian archaeology. This is illustrated with a survey of more than 250 radiocarbon dates from Puerto Rico which is used to revisit certain unresolved issues in the archaeology of the island. These issues include the Archaic/Saladoid interface, the Huecoid problem, and the spatial configuration of villages and communities in south-central Puerto Rico during the Ceramic Age. The markedly different scenarios on these issues, to those originally proposed resulting from the employment of finer scales of temporality, demonstrates the urgency of paying closer attention to time in Caribbean archaeology.

**Rodríguez-Alegría, Enrique (University of Texas at Austin) and Glascock, Michael (University of Missouri)**[103] *Sources of Lead-Glazed Pottery in Xaltocan, Mexico*

Lead-glazed pottery was introduced in Mexico by Spanish colonizers. Slowly, indigenous potters adopted glazing techniques and lead-glazed pottery made its way to rural markets, such as Xaltocan, a site approximately 50km north of Mexico City. In this poster we use INAA data to examine whether colonial lead-glazed pottery in Xaltocan comes from the same sources as contemporaneous or pre-Columbian plain earthenwares, or whether lead-glazed and plain pottery come from entirely different sources. The results have implications for the study of pottery production, market exchange, and household integration to the wider economy.

**Rodríguez-López, J. [84] see Ortiz Augilú, Juan Jose****Rodríguez-Martínez, María del Carmen [23] see Ortiz-Caballeros, Ponciano****Roe, Peter (University of Delaware)**[205] *Jungle Religion: Enduring Mythemes and Mythic Substitution in Amazonian Cosmology*

A lowland South Amerindian cosmological model (Roe 1982) envisioned a multi-layered universe: Earth, Sky and Sub-Aquatic Underworlds, each level represented by dual apical predators: Jaguar, Eagle, Caymanic Dragon. This animistic worldview emerged from a hallucinogenic epistemology, its continuous life-death transformations emulating jungle ecology. Morales' (1995) discovery of this ethos instantiated in triple-tiered Chavin Pacopampa, with the same Terrible Trinity of animal icons on each level, dates it to the Formative, stretching from Amazonian to Olmec Mesoamerica. One of that Nuclear American ethos' mythemes, the Sub-aquatic Dragon, via its mythic substitution, 19th century garretas in Shipibo mythology, endures, an archaeological Rosetta Stone.

Roe, Peter [126] *see* Hayward, Michele

Rogers, J. Daniel (Smithsonian, National Museum of Natural History) [192] *Discussant*

Rogers, Rhianna [177] *see* Brown, Clifford T.

Rogoff, David (Kenyon-Proyecto Valle de Cacaúlapa)

[234] *An Agrestic Center and Its Hinterland: Late Classic Settlement in the Environs of Las Canoas*

Survey conducted during 2005 within the middle Chamelecon drainage, NW Honduras revealed a dense concentration of sites extending along the river terraces SW of the agrestic center of Las Canoas. Material recovered from these settlements indicated that most were occupied during Las Canoas' Late Classic (AD 600-800) apogee and were variably integrated within the political economy focused on that capital. This paper describes the economic and political relations that bound Las Canoas to its hinterland and considers the implications of these ties for understanding the ways in which political economies were structured within and beyond agrestic centers.

Rohn, Art [224] *see* Watson, James

Rojas, Victor Hugo

[167] *Comparison of Two Mito Temples at Buena Vista, Chillón Valley, Perú*

The Temple of the Fox at Buena Vista is similar to Mito temples of Kotosh. It was discovered in the top of a stepped pyramid, which has three walls of "niches" between a central stairway. A second temple, was associated with a life-size mud-plaster statue of a man playing a musical instrument. It may be also be associated with a sun sculpture aligned to the summer solstice sunset and Andean Fox constellation like the offering chamber of the Fox Temple. Its niches resemble those of the second wall in front of the Temple of the Fox.

Roler Durand, Kathy [57] *see* Hull, Sharon

Román, Edwin (Universidad de San Carlos, Guatemala) and Beltran, Boris (Universidad de San Carlos, Guatemala)

[48] *Architectural and Artistic Preclassic Elements of Las Pinturas, San Bartolo, Guatemala*

During the 2005 investigations at Las Pinturas we focused our attention on understanding the diverse architectural construction phases of the pyramid, its pictographic murals, and the modeled friezes and masks that adorned the exterior of the structure. This paper will explore the evolution of architectural and artistic styles at Las Pinturas from the Middle Preclassic to the Late Preclassic periods and demonstrate how these stylistic patterns may in fact reflect political and social change over time.

Roman Berrelleza, Juan Alberto

[10] *La Participación de los Individuos Infantiles en las Practicas Rituales entre los Aztecas*

En la cosmovisión de los aztecas existieron diversas concepciones acerca de la participación de grupos sociales en ritos ceremoniales. Las fuentes etnohistóricas dan cuenta de cómo la niñez intervenía en dichas ceremonias y del papel que jugaban en la comunicación con las divinidades. Sin embargo, existían pocas evidencias arqueológicas que corroboraran lo asentado en las fuentes. El Proyecto Templo Mayor ha recuperado contextos arqueológicos que posibilitan conjuntar la evidencia arqueológica, etnohistórica y antropofísica que nos permite documentar características especiales en los niños que participaban en dichos rituales, donde la salud y la enfermedad tenían un peso determinante.

Roman-Lacayo, Manuel (University of Pittsburgh)

[139] *Tisma and Ticuantepe: A Study of Contrasts between Two Neighboring Precolumbian Communities in Masaya, Nicaragua*

Ticuantepe and Tisma are two Municipalities in the Masaya region of Nicaragua, Central America. There are very clear contrasts between the two regions, though they are less than 20 kilometers apart. The distribution of chronologically diagnostic materials, settlements and demographic patterns are quite different throughout the precolumbian sequence. This presentation will consist of an interpretation of these differences and their significance in the broader context of regional and geographic area studies.

Romero, Alvaro [219] *see Williams, Verónica I.*

Romero Palanco, Dr. José-Luis [70] *see Owsley, Douglas*

**Roney, John (USDI, Bureau of Land Management), MacWilliams, A. C. (University of Calgary), Hard, Robert J. (University of Texas at San Antonio) and Adams, Karen R. (Crow Canyon Archaeological Center)**

[27] *Comparing Cerros de Trincheras in Two Regions of Chihuahua*

We compare two sets of cerros de trincheras or hills with constructed features such as terraces, one in northwest Chihuahua, and another in southern Chihuahua. Dated hills in the northwest are Preceramic. Several of those in the south contain comparably old components but are overlain by Ceramic period occupations. Comparisons of these cohorts of cerros de trincheras are used to consider variability in hill selection, construction, form, and potential roles of these sites.

**Roos, Christopher I. (University of Arizona), Laluk, Nicholas (University of Arizona) and Altaha, Mark (White Mountain Apache Tribe, Heritage Program)**

[2] *Fire and the Ancient Management of the Forestdale Landscape*

The management and preservation of Southwestern uplands necessarily includes consideration of the role of fire. Fire histories are becoming increasingly important tools for determining the role of fire in landscape preservation. However, these fire histories often emphasize "natural" fire regimes and neglect the influence of human residents. Ancient management of fuels and fires on the landscape must also be considered. This study employs an off-site geoarchaeological approach to identify if, when, and how ancient and historic residents of the Forestdale Valley of the Fort Apache Indian Reservation modified existing fire regimes and the ecological consequences of this management.

**Roos, Christopher I. [2] *see Altaha, Mark***

**Roosevelt, Anna (University of Illinois-Chicago)**

[8] *What Are Amazonian Shellmounds? Residential Middens or Ceremonial Monuments?*

*Recent Research Suggests That They Are Both These and More*

Amazonian river shellmounds have been interpreted differently over time. In prehistory, mounds of older cultures served as foundations, building material, and ceramic temper. By the eighteenth century, Amazonians mined mounds for road material, building material, and whitewash. Late 19th century geologists thought the mounds natural deposits of index fossils for chronologies, but soon realized they were middens of early ceramic fishing peoples. Twentieth century archaeologists confirmed the middens but also found houses, cooking facilities, and ceremonial deposits; geophysical survey and test-pitting revealed complex site plans. In the 21st century wide-area excavations can reveal activity areas and structures.

[207] *see Douglas, John*

**Roper, Donna [78] *see Scheiber, Laura L.***

**Rose, Courtney (Old Pueblo Archaeology Center)**

[170] *Household Organization and Settlement in the Northern Tucson Basin, Arizona*

Changes in social organization have been documented for the Classic period (A.D. 1100 -1450) Hohokam. Research at the Yuma Wash site, a Classic period agricultural village located in the northern Tucson Basin of Arizona, explores societal change through analyses at the household level. Unlike many Hohokam sites in the region, the Yuma Wash site was occupied during both the Early and Late Classic periods, offering a unique perspective on household change. This study looks at whether observable changes in household architecture, assemblages, and spatial organization at the Yuma Wash site suggest a shift in household organization during the Classic period.

**Rose, Jeffrey I. (Southern Methodist University)**

[32] *Out of Africa and into Arabia: Upper Pleistocene Hunter-Gatherer Range Expansions into Oman*

Studies of mtDNA superhaplogroup L3 indicate the Eurasian lineage branched from an African ancestral population between 70-40 kya, and the primary route of migration was across the Bab al-Mandeb Strait into southern Arabia. Until now, Palaeolithic archaeology in South Arabia has

been terra incognita. Fieldwork conducted by the Central Oman Pleistocene Research program produced potential Pleistocene lithic assemblages with techno-typological affinities to MSA assemblages in the Horn. Evidence from Oman suggests one or more hunter-gatherer range expansions out of Africa and into Arabia, corresponding with periodic pluvials during the Last Interglacial, which transformed the interior from desert to savanna.

**Rose, Victoria (University of Wyoming)**

[78] *Subfeatures of the Wyoming Housepits*

A number of housepit sites have been identified in the Wyoming Basin and surrounding area. Many of these housepits have subfeatures, some of which may have been storage pits. Not all researchers agree that the features found inside the housepits were used for storage. These pits, however, come in a range of shapes and sizes that suggests they may have had different functions. This poster will present the results of an analysis of the subfeatures in the Wyoming housepits that investigates the feature variability and possible functions.

**Rosen, Arlene (University College London) and Jenkins, Emma (University College London)**

[61] *Cereal Exploitation in the Early Pre-Pottery Neolithic of the Southern Levant: A Phytolith Story of Foraging to Irrigation Farming*

Archaeobotanists studying the origins of agriculture in the Levant disagree about when and where the cultivation and domestication of cereals first took place. The debate is primarily based on the macrobotanical remains of cereals in PPNA sites in this region. There remain questions about the dating of the early cereals in some sites and whether these remains represent deliberately planted or collected resources at others. The phytolith record from PPNA sites in the Jordan Valley such as Netiv Hagdud, Dhra and Wadi Faynan contribute new insights to the question of whether cereals found at these sites were collected or farmed.

**Rosen, Arlene [61] see Jenkins, Emma**

**Rosen, Steven (Ben-Gurion University)**

[226] *Blood From Stone: Can We Really Do Ethnicity from Flint?*

Early Bronze Age lithic industries in southwestern Israel-Palestine reflect three distinct ethnicities attributable to Egyptian, Canaanite, and desert pastoralist societies. Each shows technological and typological contrasts mirroring ethnic distinctions defined geographically and on the basis of texts and material culture. Beyond the passive reflection of ethnic distinction, examination of the cultural contexts, functions, and chronological trajectories of the different industries and sub-industries provides insights into how the different industries functioned in their respective societies, strengthening the idea of ethnic distinction as "doing things differently."

[73] *Discussant*

**Rosenfeld, Silvana (Stanford University)**

[68] *Feasting and Animal Offerings in the Andes: The Case of Conchopata (Ayacucho, Peru)*

According to ethnohistoric sources, sponsored feasting was an important strategy for the negotiation and perpetuation of power in the Andes of South America. The importance of feasting in early Andean communities has been strongly discussed by archaeologists. This paper focuses on the animal remains recovered from the investigations in the Wari site of Conchopata (Ayacucho, Peru). The faunal analysis, combined with the architectural, ceramic, and forensic evidence, suggests communal consumption and animal sacrifice practices played important roles in sociopolitical formation through negotiating and perpetuating political control both with the living and the dead.

**Rosenstein, Dana Drake (University of Arizona), Lengyel, Stacey (Statistical Research, Inc.) and Jacobs, Zenobia (QUADRU, CSIR)**

[40] *Chronometry Beyond Carbon: A Pilot Study Using OSL and Archaeomagnetism to Date Late Moloko Sites in South Africa*

Northwestern South Africa during the late Moloko phase (ca. 1700-1830 CE, known from oral-historical records) is characterized by a radical shift in the settlement pattern of BaTswana agropastoralists, who resettled to form highly populated towns. The urban network in this region underwent frequent transformations over short periods, thus it is essential for the reconstruction of technological, social and political change to know the relative chronologies of archaeological sites. Radiocarbon dating is inadequate because of fluctuations in atmospheric production of radiocarbon during this time range. This pilot study was an experiment in dating Moloko sites by optically stimulated luminescence and archaeomagnetism.

**Rosenswig, Robert (Université de Montréal)**

[207] *The Origins of Monumental Architecture and Social Stratification at Cuauhtemoc, Mexico*

Using the site of Cuauhtemoc in the Soconusco as a starting point, I examine the earliest monumental architecture in Mesoamerica. In 1600 BCE, Cuauhtemoc began an 800 year occupation as a local center; yet it was only during the Conchas phase (900-800 BCE) that a 5 m high mound was built at the site. The Conchas phase was also when the regional center of La Blanca was founded and a 25 m mound erected. While ambitious leaders had been competing with each other for centuries, the Conchas phase provides evidence of the first truly stratified society in the Soconusco.

[136] *Discussant*

**Roskandic, Mirjana (University of Toronto)**

[223] *A Look at Burial Practices from the Mesolithic Shell Middens in the Muge Valley*

While Muge valley shell middens have a long history of excavations and research, to date relatively little attention has been paid to burial practices. Here we examine the burials from the new excavations (2000-2003) and compare them to published data and burial information gathered from the skeletal material preserved in breccia at the Museo Geologico in Lisbon (Portugal).

**Ross, Ann H. (NC State University) and Ubelaker, Douglas H. (NMNH, Smithsonian Institution)**

[84] *Three-Dimensional Craniofacial Evidence for Multiple Population Expansions in the Caribbean*

Dispersal hypotheses in the Caribbean are evaluated using modern three-dimensional methods. A study of facial shape variation was conducted among pre-contact Taino (Arawak) groups from Cuba, Hispaniola, Puerto Rico, and Jamaica and pre-contact groups from Florida, Mexico, Panama, Colombia, Venezuela, and Ecuador using landmark-based Procrustes superimposition and thin-plate-spline approaches from the geometric morphometry. Ten homologous facial landmarks were used to reflect the among-group variation. A Microscribe G2X ® digitizer was used to collect the coordinates. A nonparametric MANOVA comparing the sum-of-squares accounted by group membership to that of 999 random permutations of group membership detected significant group differences.

**Ross, Ann H. [84]** *see Ubelaker, Douglas H.*

**Ross Klinge, Erin [5]** *see Anderson, Lisa*

**Rossel, Stine (Harvard University)**

[215] *The Development of Productive Economies in Upper Egypt: Zooarchaeological Investigations at El-Mahasna and South Abydos*

This presentation considers the evolution of specialized subsistence production in the Nile Valley to evaluate the significance of this development for the beginnings of social complexity. Subsistence practices in the Predynastic period and the Middle Kingdom are compared using faunal remains from settlements around Abydos. In recognition that temporal changes in feeding strategies may in part reflect alterations of the resource base, the impact of palaeoenvironmental changes is considered. A model is proposed to explain how transformations in human and natural systems together were responsible for the creation of one of ancient Egypt's hallmarks, the redistributive economy.

**Rossen, Jack (Ithaca College)**

[96] *Exploring New Dimensions in the Study of Archaeological Plants*

In the northeast U.S., the study of archaeological plant remains (archaeobotany) is relatively new. What directions should archaeobotanists take in the future? Until now, we have focused on methodology more than theory. Most research has addressed food inventories, comparative plant economies, and issues such as the development of native and tropical plant cultivation. We now have opportunities to take archaeobotany into theoretically rich new frontiers, including using ancient plants to understand cultural evolution, medicine, ethnic identity, status, sociocultural boundaries, and political aggression or resistance. This paper briefly illustrates these new directions and challenges archaeobotanists to move to new dimensions.

**Rostain, Stéphen (C.N.R.S.)**[90] *The Raised-Fields of the Guianas Coast*

The swampy coast of the Guianas offers few areas for slash-and-burn cultivation. During population increase, Indians had to gain space on the swamp for agriculture and they built agricultural plots with a complex water management system in these open areas, deeply changing the landscape. Thousands of raised-fields are found along the Guianese coast from Cayenne Island in French Guiana up to the Essequibo river in Guyana. This technique is associated with groups of high social complexity, such as the Arauquinoid tradition which settled in the coastal plain between 600 and 1400 AD.

**Roth, Barbara (UNLV) and Frink, Lisa (UNLV)**[58] *Writing Gender*

Despite a plethora of gender literature produced in the last decade, it is apparent that the topic of gender is yet to be considered "mainstream." Here we use the experiences of five archaeologists to examine the challenges of publishing on gender and the strategies they have used to publish their work. We also report on our study of the publication of gender-related topics in three major archaeological journals. We then explore whether where we publish has somehow marginalized our work, lessening our intellectual impact. We discuss ways that gendered research can become a significant factor in conventional archaeological practice.

**Roth, Barbara [226]** *see Hickerson, Robert*

**Roth, Bridget (USDA Forest Service Rocky Mountain Region)**[225] *Beyond Data Entry: Forest Service Information Management Strategies for Cultural Resource Preservation*

I-Web, the USDA Forest Service corporate database, increases the Heritage program's efficiency and accountability through effective and uniform tracking and management of heritage sites, projects and costs. Developments in mobile technologies, incorporation of legacy data, and the integration of tabular and spatial datasets allow contractors and staff to eliminate redundancy and seamlessly generate reports. Effective data management can free up funding for public outreach and site stewardship programs, as well as reduce response time in the event of natural disasters, and allow for development of new landscape analysis tools for protection of our nation's cultural resources.

**Rothman, Mitchell [232]** *see Erdman, Katherine*

**Rothschild, Nan (Barnard College, Columbia University) and Atherton, Heather**[91] *Colonialism, Past and Present, in New Mexico*

San Jose de las Huertas was established as a land grant community by the Spanish crown in 1765 and occupied for about 60 years. Many of its residents returned to the area after a brief interval to found the village of Placitas, which exists today. Archaeological excavation at Las Huertas, documentary research and oral history from descendants of the original settlers reveal the shifting impact of different colonialisms, each accompanied by an image of modernity. Spanish demands were attenuated by distance and waning power. American impositions are more problematic, involving a new political economy, conflicts over land and water, as Placitas converts to a bedroom suburb of Albuquerque.

**Rots, Veerle (Katholieke Universiteit Leuven)**[32] *Core-Axe Production, Hafting and Use: Complex Technologies in the Sangoan of Sai Island, Sudan*

The results of a wear analysis of Sangoan core-axes from site 8-B-11 at Sai Island, Sudan, demonstrate that the middle Sangoan occupation level served as a locale where specialized activities were performed, including core-axe manufacture and hafting. New quartz core-axes replaced exhausted items that were mostly fabricated out of materials other than quartz, which were carried back to the site in their hafts. The hafted core-axes appear as highly mobile, curated tools, being transported across a large territory. A significant degree of planning and functional anticipation can be inferred in their manufacture.

**Rouja, Phillippe (Centre Hospitalier Universitaire de Quebec)**[89] *Modelling With Modern Aboriginal Fishermen: Accomodating Empirical Fat Obsessed Fishermen*

This paper presents research on the fishing patterns and resource use strategies of the Bardi

people of One Arm Point Western Australia. Research has uncovered that one of the primary goals of Bardi fisheries management strategies is the protection of reproducing species and the maximization of marine fatty acid consumption. Added to the current evidence for a link between marine fatty acids and specific human brain evolution, this deeply embedded focus on marine fatty acids in a fishing community that is at least 27000 years old, challenges us to view fishing as perhaps the defining characteristic of human antiquity.

**Rouse, Jesse (West Virginia University), Harris, Trevor (West Virginia University) and Bergeron, Sue (West Virginia University)**

[101] *Higuchi Viewsheds, Phenomenology, and the Systematic Experience of Landscapes*  
Phenomenology to date has focused on personalized experience. For phenomenology to be a viable approach to landscape archaeology, the experience of landscape must be explored through some shared metric. Higuchi viewsheds potentially offer a systemized approach toward a phenomenology of archaeological landscapes. This paper proposes to link landscape archaeology, geospatial technologies and Higuchi viewsheds to support a shared metric of experiential archaeological interpretation consistent with a phenomenological approach to landscape.

**Rouse, Jesse [101]** see Harris, Trevor; [101] see Bergeron, Susan

**Rovner, Irwin (Binary Analytical)**

[194] *Fundamental Creationist Foundations and Systematic Error in Current Archaeobotanical Analysis -- What Happened to Darwin?*

Archaeobotanical analysis, paying only lip service to Darwinian principles basic to systematic biology, is still pervasively mired in 17th century Creation Science axioms. Reliance on arbitrary, subjective morphotypes, misleading mean values and unrepresentative normal distributions obliterate the presence of Darwinian variation in macro- and microscopic assemblages of archaeobotanical remains. This provides false and unrepresentative reference standards for analysis and interpretation. Detailed size and shape measurements of large reference populations provide realistic data to generate distributions of Darwinian variation, exposing several fallacies in morphological analysis currently accepted as valid and widely employed in archeobotanical research.

[222] see Sheehan, Michael

**Rowan, Yorke (University of Notre Dame) and Ilan, David (Hebrew Union College - Nelson Glueck School of Biblical Archaeology)**

[15] *Poor Man, Rich Man, Shaman, Priest?*

The Chalcolithic period of the southern Levant (c. 4500-3600 BC) is considered by many archaeologists to have been characterized by hierarchical societies. Diverse, elaborate mortuary practices, prestige items and evocative imagery complement social phenomenon such as population growth, settlement hierarchy and craft specialization. Evidence for religious beliefs and ritual practices is recognized and described in the literature, but with little discussion of the linkage between religion, ceremonial behavior, social structure and material culture. Against this background, we examine the possibility that different modes of ritual and different kinds of practitioners coexisted in the Chalcolithic culture.

**Rowan, Yorke [15]** see Cohen, Andrew

**Rowe, Marvin (Texas A&M University) and Steelman, Karen (University of Central Arkansas)**

[196] *Radiocarbon Dating of Rock Paintings: Where Do We Stand?*

Rock paintings have been radiocarbon dated for over 15 years. Nonetheless, the current situation is less than ideal. Far too few independent analyses on a single pictograph have been done to compare methods used. And in those few comparisons, agreement was less than satisfactory. These few cases will be discussed. Most of the radiocarbon dates on rock paintings are from only four groups. Caution is indicated before accepting rock art dates until further independent tests are available. Recent results will be discussed.

**Rubin, Julio [204]** see Silva, Rosicler

**Rucabado-Yong, Julio (University of North Carolina at Chapel Hill)**

[95] *Construyendo y Destruyendo Identidades: Tumbas de Elite en San José de Moro durante el Periodo Transicional Tardío*

Durante el período Transicional Tardío, San José de Moro siguió siendo utilizado como

camposanto por diversos grupos de elite de la región Jequetepeque-Chamán. Como parte de sus prácticas funerarias, estos grupos decidieron mantener el uso periódico de recintos subterráneos y semisubterráneos como repositorios para entierros primarios y secundarios. Con esto se buscó reconstruir y preservar identidades colectivas de elite durante este período. Posteriormente, coincidente con el inicio de la presencia de tradiciones funerarias Lambayeque en el cementerio, estos mausoleos fueron sistemáticamente profanados buscando probablemente el desprestigio de los linajes locales.

**Ruhl, Donna L. (Florida Museum of Natural History, University of Florida)**

[248] *South Florida Archaeobotany from the Glades to the Coasts*

Archaeobotanical artifacts from south Florida have been among some of the richest finds in the Americas including the beautiful masks, gourds, and carvings uncovered by Cushing at Key Marco to the wooden effigies at Fort Center. Contemporary research includes fine-screened samples of rich and not-so-rich deposits of seeds and wood, which reflect not only the prehistoric artisans but, also the cooks, carpenters, gardeners, and others. This paper will be a brief overview of selected South Florida sites that have preserved plant remains and details provisional methodological and socio-cultural insights we have gleaned from the archaeobotanical record.

**Ruievo, M. L. [90]** *see Lopes, Paulo do Canto*

**Ruiz, Alvaro [168]** *see Creamer, Winifred*

**Ruiz, Arminda (Archaeological Museum of Aruba), Dijkhoff, Raymundo (Archaeological Museum of Aruba) and Kelly, Harold (Archaeological Museum of Aruba)**

[126] *Management and Preservation of Rock Art Sites within the Context of the Aruba Survey Project*

The actions of natural agents, possibly combined with human induced changes in the surroundings, are leading to visible deterioration of some of the pictographs on Aruba. Technology now available will allow systematic revisiting of the pictograph sites according to a newly developed methodology. These sites will be re-documented within the context of the Aruba Survey Project, during which all data concerning their location, conservation and preservation status will be digitalized. This data will be used for research, preservation and management purposes.

**Runggaldier, Astrid (Boston University)**

[48] *Design and Function of a Royal Palace at San Bartolo, Guatemala*

This presentation addresses how the San Bartolo court designed its palace, the Tigrillo Complex, and maintained it an important locale from the Preclassic period onwards. Its location, layout, and relationship to other architectural nuclei of the site core suggests that it played a key role for its builders, and for San Bartolo residents through the Terminal Classic period. Data from architecture, ceramics, and burials indicate the importance of this palace through time, and show that San Bartolo maintained an elite class long after the termination and burial of the murals of the Pinturas Group in the Late Preclassic period.

**Running Wolf, Tyson [2]** *see Jelinek, Lauren*

**Rupley, Eric (University of Michigan) and Wright, Henry (University of Michigan)**

[101] *The Sustaining-Area Survey of Tell Brak, Syria: A Comparative View*

We report on four seasons of satellite-assisted archaeological survey in the sustaining area of Tell Brak (ancient Nagar), a 1200 sq-km intensive survey in North-East Syria. We will review both our methodology, which involves search optimization using multispectral identification of settlement-associated sediments augmented with CORONA legacy imagery, and our preliminary results, including an intra-regional comparison of localized settlement pattern development from the 4th and 3rd millennia BC.

**Ruscheinsky, Lynn (Langara College)**

[147] *Affected Bodies: Ancient Lowland Maya Figurines*

This paper will explore the constitutive and mutually defining relations between bodies and representation in reference to change in ancient Maya social relations. I will consider how the ancient Maya body might have been socially, sexually and discursively produced, transformed, contested and re-inscribed. Imagining possible interaction that children might have had with



Lowland Maya figurines I will investigate how the subject's exterior may have been psychically constructed: and conversely, how the processes of social inscription of the body's surface may have constructed a psychical interior. I will further consider how the culturally produced body may have actively produced and transformed the social landscape according to its changing needs.

**Rush, Laurie (US Army, Fort Drum), Holland, Jack (Buffalo Museum of Science), Wood, Amy (Colorado State University) and Schulz, Margaret (Colorado State University)**

[172] *Lithic Sourcing and Site Evaluation in the Context of Large Scale Survey*

Based on 130,000 shovel tests and 60,000 acres of archeological survey, the most common prehistoric site type in the Fort Drum region is the lithic scatter. Lithic sourcing, in combination with geographic analysis, provides critical information in terms of the new knowledge these sites offer. Identifying lithic sources and associated pathways in and out of the region provides insight into the cultural prehistory of the area. According to the Buffalo Museum of Science, documented lithic sources on Fort Drum include Paleo and Archaic connections to the eastern seaboard and Woodland contact with the Ohio Valley to the west.

**Rush, Laurie [66] see Schulz, Margaret**

**Russell, Nerissa (Cornell University), Martin, Louise (University College London) and Twiss, Katheryn (Stony Brook University)**

[215] *Building Memories: Commemorative Deposits at Çatalhöyük*

Neolithic Çatalhöyük, Turkey, is well known for its incorporation of animal parts into architecture: bucrania, horns in benches, etc. We examine the less visible placement of items in pits inside houses to commemorate particular events. Animal parts feature prominently in these deposits, typically found under platforms on the south and west of the house, while human burials are usually in the north and east. We examine the range of contents of these commemorative deposits in relation to other lines of evidence regarding the consumption and meanings of animals at Çatalhöyük.

**Russell, Nerissa [178] see Bogaard, Amy; [28] see Twiss, Katheryn**

**Russo, Michael (National Park Service/SEAC)**

[8] *Deconstructing Shell Circles: Subsistence, Ceremony, or Synchrony?*

The idea that Southeastern U.S. Archaic shell rings represent village sites, ceremonial centers, or monuments has previously been presented as mutually exclusive hypotheses. Recent excavations, ethnographic comparisons, and theories of social space and feasting suggest that Archaic shell rings served these functions simultaneously. Two millennia later, ring-shaped Weeden Island sites were constructed on the Florida Gulf Coast. As with the Archaic rings, these sites held domestic and ceremonial, but not monumental functions. Internal structure, layout, and position of Archaic and Weeden Island ring sites provide data that help resolve issues of site function for both cultures.

**Russo, Mike [248] see Means, Guy H.**

**Rypkema, Heather [204] see Lee, Wayne**

**Ryzewski, Krysta [5] see Deslatte, Kaitlin**

**Sabloff, Jeremy (University of Pennsylvania)**

[119] *Warwick Bray: An Appreciation*

Reviews the academic life and significant scholarly publications and contributions of Professor Warwick Bray over four productive decades.

[49] *Discussant*

**Sáenz Samper, Juanita (Museo del Oro, Banco de la Republica, Colombia)**

[34] *Tecnología Metalúrgica en la Sierra Nevada de Sta Marta: El Cambio Social y la Orfebrería*

La tecnología es un sistema social donde el hombre transforma la naturaleza de acuerdo con formas particulares de concebir el mundo. Técnicas, materiales y formas escogidas para lograr un fin están determinadas por la organización social, política, económica y religiosa. El estudio integral de la metalurgia de la Sierra Nevada de Santa Marta, sus formas, diseños, materiales y

técnicas empleadas, nos permiten ver continuidades así como cambios en la manera cómo concebían el mundo las poblaciones que la habitaron durante los periodos Nahuange y Tairona.

**Sagebiel, Kerry L. (Statistical Research, Inc.)**

[87] *The Persistence of Local Traditions and Memory at La Milpa, Belize*

As a city located at the boundary of three major regional states, La Milpa's elite potters and artisans incorporated many diverse regional stylistic and technological attributes. However, non-elites' ceramic repertoire changed more slowly and there was continued use of local stylistic and technological traditions. The resilience and persistence of local practices during the Early-to-Late Classic transition is examined through a careful seriation of ceramic attributes from a range of contexts as well as a theoretical consideration of elite and non-elite local memory and traditions in the face of extra-local hegemonizing effects.

**Sahnouni, Mohamed (Indiana University, CRAFT & Stone Age Institute)**

[17] *The Oldowan Record in North Africa*

Much of the Plio-Pleistocene data on the Oldowan is primarily from sites in East Africa. However, recent investigations undertaken at Ain Hanech (Algeria) have broadened the Oldowan range to North Africa. Dated to 1.78 million years ago, Ain Hanech yielded Oldowan assemblages associated with a savanna-like fauna contained in floodplain deposits. The industry comprises core forms, debitage, and retouched pieces, and is a North African variant of the Oldowan Industrial Complex. The site may be viewed as repeated occupations by early hominins at some water wholes and river embankment likely attracted by good quality raw materials and by abundant games.

**Sakai, Sachiko (UC Santa Barbara)**

[57] *Investigation of Olivine Tempered Ceramics and Clay Procurement Patterns in the Virgin Branch Anasazi Region*

Olivine tempered ceramics are widely distributed within the Virgin Branch Anasazi region of the American Southwest. Previous ICP-MS analysis shows that olivine ceramics found in Southern Nevada were from Mt. Trumbull and its vicinity. A new INAA study infers multiple clay sources involved in the production of olivine ceramics transported into the Southern Nevada. In this paper, I will examine how these ceramics reflect the clay procurement pattern of olivine ceramics in the Mt. Trumbull area. It is expected that this examination will provide us a deeper understanding of the pottery production and distribution patterns among the Virgin Branch Anasazi.

[108] *see Buck, Paul*

**Salas, Marcela [86] *see García Moll, Roberto***

**Salazar, Lucy [207] *see Burger, Richard***

**Salisbury, Roderick (University at Buffalo)**

[35] *Application of Lithic and Spatial Analysis to the Identification of Discreet Occupations at Multicomponent Sites*

The results of spatial and lithic debitage analysis conducted from a particularly debitage-rich portion of a multi-component site in western New York are examined. The primary component of the site is a sixteenth-century Iroquoian village. Frequently, archaeologists treat material recovered from multi-component sites as representative of the primary, or largest, component. Analyses conducted for this study suggest the presence of an Early Woodland Meadowood component. While additional work will strengthen this interpretation, the identification of an Early Woodland lithic workshop within a plowed, multi-component site adds to our understanding of both site disturbance and prehistoric settlement patterns in the region.

[153] *see Morris, Margaret*

**Sall, Candace (University of Missouri-Columbia)**

[27] *Food and Ritual in Casas Grandes*

Food and ritual are segments of culture that are closely intertwined. Domestic uses of food differ from ritual uses in processing and food type. In Casas Grandes, Chihuahua, Mexico, food remains vary in domestic and ritual areas. Ritual foods may be unique items but are often foods used everyday. The types of remains found in the ceremonial areas of Casas Grandes include those found in familial areas along with some interesting additions.

**Salminen, Mikko [139]** *see* Geurds, Alexander

**Saloma, Ana Maria (Escuela Nacional de Antropología e Historia)**

[56] *La Cultura del Tabaco entre la Población de Origen Africano en México*

El tabaco de origen americano, fue un producto que incorporaron rápidamente diversas culturas, entre ellas las de origen africano. Los esclavos africanos que fueron traídos a América, conservaron elementos de su cultura, la cual enriquecieron con elementos indígenas mesoamericanos y occidentales, ejemplo de ello es la adopción que hicieron del tabaco. Se presentaran las formas culturales de la producción, uso y consumo del tabaco entre la población de origen africano en la región que actualmente se conoce como el estado de Veracruz. El periodo histórico comprenderá de los siglos XVIII al XX.

**Salter-Pedersen, Ellen (Indiana University), Spencer, Susan (Indiana University) and Cook, Della C. (Indiana University)**

[80] *Pomacea Snails and Classic Maya: Archaeogastronomy?*

Apple Snails (*Pomacea*) were a dietary component in parts of the Classic Maya region. Size distribution can shed light on harvesting or cultivation practices. This poster compares the distribution aperture maximum diameter from an Early Classic aguada, a Terminal Classic limited activity structure, a Terminal Classic midden, and recent snails collected from a lagoon at Chau Hiix, Belize. No significant variations in mean snail size were found, but the distribution of snail sizes differed. The greatest differences occurred between the modern sample and the aguada and midden sites.

**Salzer, Matt [106]** *see* Barlow, Renee

**Salzer, Robert (Cultural Landscape Legacies, Inc.)**

[241] *The Gottschall Site: 3500 Years of Ideological Continuity and Change*

More than twenty years of excavation at Gottschall Rockshelter, Wisconsin has resulted in discoveries that are far greater in number and significance than the size of this small sandstone rockshelter would suggest. For at least 1700 years, the cave was the site of ritual activities. We now have sufficient data to allow us to define a core ritual that was performed during the period from at least 500 BC until about AD 1100. This paper describes those rituals and explores the implications of the associated culture history and change in local, regional and broader events in eastern North American prehistory.

**Sampeck, Kathryn (Tulane University)**

[216] *Late Postclassic to Early Colonial Economic Systems of the Izalcos*

Many historical and anthropological studies of the Izalcos region of western El Salvador have focused on cacao production. While cacao was an important element in precolumbian and postconquest exchange systems, it was but one of many factors. Archaeological and ethnohistorical work in the Izalcos heartland has elucidated details of complex economic networks based on tribute and exchange both before and after Spanish conquest. Artifactual and settlement data point to the interplay of several forces in the construction of the Izalcos political economy. These data provide a good case study for examining the appropriateness of Wallerstein's world systems theory.

**Sampson, Garth (Southern Methodist University)**

[59] *Haaskraal Pan: A Very Early Middle Stone Age Site in the Upper Karoo Region of South Africa*

Alluvium and playa fills between two stream channels of the upper Seacow River have produced stratified samples of Acheulian and Middle Stone Age (MSA) artifacts. One U-series date on a solitary fragment of ostrich eggshell (OES) is associated with a small, undiagnostic sample of bone fragments. The OES dates to 244±38/-40 kyr, and comes from 2.23m below the modern pan surface. It is in close association with MSA artifacts, including large blades, made of near-mint hornfels. The context of this material is poor. The MSA artifacts and the OES/bone have migrated down mudcracks to their current positions near the base of the profile.

[143] *see* Youngblood, Dawn

**Sanchez, Granada [98]** *see* Bernaldo de Quiros, Federico

**Sanchez, Guadalupe (University of Arizona) and Martinez, Natalia (INAH)**

[224] *Maize, Weeds and Non-Weeds: The Mixed Subsistence Strategy at La Playa During the Early Agriculture Period*

The Paleoethnobotanical study program of La Playa was developed to understand the plant subsistence of the ancient population of the site; we analyzed plant remains from different types of archaeological features and obtained a representative sample of the interaction between plants and humans. The plant inventory for La Playa contains maize, as well as, weeds and non-weeds, suggesting that during the Early Agriculture Period a mixed economy of foraging and farming was practiced. Changes on food resources throughout this period probably indicate a population growth during the Cienega phase and the existence of a fulltime agricultural community.

**Sanchez, Guadalupe [154] Discussant; [224] see Ochoa, Sarriá; [224] see Carpenter, John**

**Sanchez Herrera, Luis Alberto (Smithsonian Tropical Research Institute)**

[102] *La Cerámica de Cerro Juan Díaz en la Tradición del Gran Coclé, Panamá*

El proyecto de Cerro Juan Díaz proporcionó una buena colección de cerámica que es abarcadora en el tiempo y está bien documentada desde el punto de vista de su contexto arqueológico. Ningún otro sitio estudiado en Panamá brinda la posibilidad de comparar en múltiples dimensiones (producción, función, estilo y simbolismo) tantas fases evolutivas in situ. Nuestro estudio, en su etapa descriptiva, ha profundizado en detalles morfológicos, decorativos y tecnológicos de la cerámica del Gran Coclé, redefiniendo la secuencia de estilos policromos y aportando una tipología más completa que la anterior

**Sandgathe, Dennis [76] see Schurmans, Utsav**

**Sandweiss, Dan (University of Maine) [175] Discussant; [53] Discussant**

**Sandweiss, Dan (University of Maine) and Richardson III, James (Carnegie Museum/University of Pittsburgh)**

[8] *Shell-bearing Sites of Ancient Peru*

We review shell-bearing site types and the history of their study for the Peruvian coast. This region has the New World's longest and most continuous record of shell-bearing, maritime adapted sites, from Paleoindian (13,000 cal. yr BP) to modern. However, few sites are composed entirely of shell and fish remains, and archaeology of the region does not have a developed tradition of treating such sites as a separate archaeological or social category. Nevertheless, shell-bearing sites have played critical roles in many dimensions of Andean archaeology, from subsistence to paleoclimate to theoretical statements on the rise of complex society.

**Sanger, David (University of Maine)**

[8] *Eastern United States Shell Mounds*

Shell mounds along the U.S. Atlantic shore have been investigated for over 100 years. Initial concerns with "natural vs man-made" gave way to simple culture history, and then to issues of cultural processes, including subsistence and settlement practices. Shell mounds as social boundary markers and burial/ceremonial centers are discussed. Implicated in all these studies are the issues of record preservation and the impact of natural changes on shell mound context, content, and function.

**Sanger, Matthew (American Museum of Natural History)**

[138] *Old Rocks, New Theories: A Critical Re-examination of Hafted Biface Typology in the Southeastern United States*

This poster displays recent archaeological data and lithic theories based on a collection of projectile points from South Carolina. The findings and hypothesis have ramifications for mobility, long distance trade, as well as the lithic typology used in the American Southeast. Detailed material sourcing, statistical analysis of metric attributes, and an in-depth knowledge of the available literature were all used and exemplify the way archaeologists can use museum collections for current questions regarding pre-contact peoples. Questions regarding use of unprovenienced data, the ethical dilemmas inherent in using amateur collections, and the place of museums in theory creation are all presented.

[79] see Kick, Maureen S.

**Santoian, Kimberly [103] see Semon, Anna M.; [79] see Kick, Maureen S.**

**Santoro Vargas, Calogero [219]** *see Williams, Verónica I.*

**Santos, Seidel [77]** *see Pereira, Edithe*

**Sapp, William (San Bernardino National Forest)**

[95] *An Indigenous Lambayeque Polity in the Jequetepeque Valley: Architectural Evidence from Pacatnamu and Cabur*

This paper presents evidence that the Lambayeque polity that flourished in the Jequetepeque Valley between the Moche and the Chimú was a local development rather than the result of outside conquest.

**Saputo, Derek [172]** *see Rieth, Christina B.*

**Sara, Timothy (Geo-Marine, Inc.), Keegan, William (University of Florida) and Larson, Bruce (U.S. Navy)**

[176] *Preliminary Archaeological Investigations of U.S. Naval Station Guantanamo Bay, Cuba*

In 2003 an international team of archaeologists and paleoscientists conducted the first archaeological survey of U.S. Naval Station Guantanamo Bay, Cuba. As a result, 41 archaeological sites were recorded, encompassing the Precolumbian, Spanish colonial, Spanish-American War, and early U.S. Navy periods. Four radiocarbon dates obtained from sites range from cal. 2880 to 2660 BP, to cal. 710 to 530 BP, spanning the Archaic through Ceramic periods. Macrobotanical specimens were identified at two sites and analysis of soil micromorphology identified paleosols impacted from past human use. The work provides a critical tool for implementing an historical preservation plan for the station.

**Sarjoughian, Hessam [220]** *see Barton, Michael; [80]* *see Allen, Eowyn*

**Sarobei Rivera, Esq., DeAnna M. [123]** *see Alvitre, Cindi*

**Sassaman, Kenneth (University of Florida) and Randall, Asa (University of Florida)**

[8] *Shell Mounds of the Middle St. Johns Basin, Northeast Florida*

Few of the hundreds of shell mounds that once stood along the St. Johns River survived mining operations of the last century, but those that remain have limitless research potential. Four mound sites recently investigated each contain basal components dating from 6000 BP, stacked sequences of mound fill and living floors, and unconformities indicative of local ruptures in occupational histories. Variation is marked among these and other mounds of the region, although observed at appropriate spatial and temporal scales, differences among mounds are understood as consequences of historical and regional-scale processes that implicate both riverine and coastal populations.

**Sassaman, Kenneth [54]** *see Randall, Asa*

**Saturno, William (University of New Hampshire)**

[48] *Proyecto San Bartolo 2001-2006: Where We've Been and Where We're Going*

Since the fortuitous discovery of the murals at San Bartolo in March of 2001, the San Bartolo Regional Archaeology Project has brought together both a team of experts and the best technology has to offer to document, contextualize, and preserve these remarkable paintings. This paper offers a summary of the techniques used, highlighting both their successes and pitfalls, and provides a blueprint for where the project is going as we begin our second phase of investigations.

[48] *see Lang, Rebecca; [48]* *see Griffin, Robert E.; [208]* *Discussant*

**Sauer, Erin (Ohio State University)**

[153] *Analysis of Paleomeanders in Conjunction with Early Copper Age Settlement Sites: Békés County, Hungary*

This paper examines the interrelationship between meanders of the Feher and Sebes-Körös Rivers and Early Copper Age Settlements located in Southeast Hungary. Soil cores extracted from in and around meanders near the modern towns of Vésztő, Mezőberény, Körösladány and Zsadány are discussed in regards to their relationship with two Copper Age settlements near Vésztő. Previous research had shown that the meanders were dry by the Early Copper Age. The location of settlements along these meanders appears to have been due to the relative highs in topography created by the channels along otherwise flat ground.

**Saunders, Rebecca (Louisiana State University)**[8] *Monuments or Middens: Shell Ring Sites on the Lower Atlantic Coast*

Shell rings are arc- to circular-shaped constructions built on the lower Atlantic and Gulf coast between about 4600 and 3000 BP. Opinion on ring function has vacillated between sacred and secular since they were first described. In this paper, I suggest that rings were special facilities for the aggregation of dispersed bands for feasting, ceremony, and other social functions. I present data from the Rollins, Guana, and Fig Island Shell Rings to test this hypothesis and to discuss variability in Archaic period shell ring sites as an evolution of function through time and space.

**Scaglion, Richard [77]** *see Cordero, María-Auxiliadora*

**Scarborough, Vernon (University of Cincinnati) [220]** *Discussant*

**Scardera, Francis (Colorado State University)**[35] *Evidence for Rock Art in Iroquoia*

Recent discoveries of red ochre pictographs along the banks of Black Lake in upstate New York have rekindled the debate over whether or not there is sufficient evidence for the use of rock art amongst the Iroquois during both prehistoric and historic times. The following paper reviews both archaeological data and historical references of rock art sightings in Iroquoia and its surrounding regions in an attempt to create a sensitivity model to better assist archaeologists in the exploration and discovery of these rare and unique sites.

**Scarry, C. Margaret (University of North Carolina-Chapel Hill)**[109] *Crop Husbandry Practices in North America's Eastern Woodlands*

Considerable attention has been devoted to documenting the existence of indigenous crops in North America's Eastern Woodlands and to understanding the timing and reasons of their replacement by maize, beans and squash. However, husbandry practices have received only passing attention despite their relevance for these topics. I argue that the terms horticulture and agriculture, often associated with indigenous crops and maize respectively, have misleading connotations. Most indigenous crops would be more efficient to plant and harvest if grown in "pure" stands. In contrast, the widespread intercropping of the "three sisters" attests to their productivity when grown in mixed stands.

[178] *see Snyder, Lynn M.*

**Schaaf, Lisa N. (Hamilton College), Vicari, Mary Ann (Hamilton College), Domack, Eugene W. (Hamilton College), Jones, George T. (Hamilton College) and Cannon, Michael D. (California St. Univ.-Long Beach)**

[44] *Geoarchaeological Investigations at Smith Creek Cave, White Pine County, Nevada*

Smith Creek Cave (26WP46) is a limestone cavern resting high above the shorelines of Pleistocene Lake Bonneville in eastern Nevada. The focus of intermittent paleontological and archaeological exploration since the 1920s, the site has yielded an extensive late Pleistocene faunal record and contains terminal Pleistocene cultural strata. The Mount Moriah occupation is well-dated to the mid-11th millennium BP, but has yielded several controversial earlier dates. We report on field studies in 2005 that produced radiocarbon and sediment samples from cultural and pre-cultural deposits and subsequent geoarchaeological analyses to assess chronology, paleoenvironments and the effects of looting at this important site.

**Schaafsma, Hoski (Arizona State University), Kruse, Melissa (Arizona State University) and Johnson, Katie (Arizona State University)**

[118] *The Palimpsest Landscape: Ancient Land Use Intensities Revealed by Modern Soils and Plant Communities*

Human activities on the landscape create changes that are perpetuated through time as ecological legacies thereby creating a palimpsest effect in modern plant communities and soils. At AFNM we have documented ecological legacies on small scale agricultural terraces and larger areas surrounding pueblo sites created by a variety of human activities, primarily removal of stones and farming. We show that anthropogenic legacies differ between types and intensities of prehistoric land use by quantification of localized plant communities and analysis of aerial photography. We propose ways that these legacies can be interpreted to infer past land use intensities through time.

**Schaafsma, Polly [27]** *see Webster, Laurie*

**Schaan, Denise (Museu Paraense Emilio Goeldi)**

[90] *Natural Resource Management in PreColumbian Marajo Island*

Since the 19th century, scholars have associated moundbuilding and elaborated material culture with the emergence of complex societies on Marajo Island circa 500. Recently, the identification of other earthworks (dams and human built lakes) next to the mounds have helped to understand pre-Columbian subsistence practices, offering a new perspective on cultural changes. Aquatic resource management is proposed to account for the emergence of chiefdoms on Marajo Island, and may be valid for other regions in the tropical forest. This is an alternative to traditional models that explain cultural complexity resulting from agricultural intensification.

**Schamu, Nancy (National Council of State Historic Preservation Officers)**

[225] *Bridging the Technological Divide: Communication and Coordination between State and Federal Agencies*

NHPA's foundation is historic property identification. While SHPOs are responsible for a number of preservation activities, the most fundamental is inventory of State historic resources. "Bare bones" funding coupled with user demands produced a "triage" approach - addressing "demands" to the detriment of historic resource identification. Acknowledging the seminal importance of an inventory, a patchwork of approaches exists across the country. Transportation enhancement funds help some SHPOs populate inventories. Federal agencies assist State inventory development. Further, continued low funding restricts maintenance and upgrades to electronic inventory systems. Communication and coordination among cultural resource information users is essential; modern technology makes it possible.

**Scharf, Elizabeth (University of North Dakota)**

[6] *Strategies for Teaching MNI, NISP, and Optimal Foraging Theory to Undergraduates*

Although lecture-based delivery can be used to introduce undergraduates to zooarchaeological concepts such as MNI, NISP, and Optimal Foraging Theory (OFT), alternative approaches have the potential to convey the same information while increasing student engagement. This poster presents active learning strategies used in the classroom, such as interrupted case studies and a game, and assesses the success of these activities using student feedback and the instructor's evaluation of concept mastery.

**Schávelzon, Daniel (University of Buenos Aires)**

[181] *The History of Latin American archaeology: A Review of His Present Status*

During the last 50 years Latin America had produced much literature related to the history of its archaeology, or the archaeology produced in its countries. But the particular history of each country shows different interests, interpretations and indeed, has been used as a political weapon. This paper reviews the current status of this research and possible developments in the near future.

**Scheiber, Laura L. (Indiana University), Gencer, Yasemin (Indiana University), Fragomeni, Ashley (Indiana University), Hoard, Robert (Kansas State Historical Society) and Roper, Donna**

[78] *Beyond Houses and Hoes: New Interpretations of Prehistoric Farmers in Western Kansas*  
Relationships among late prehistoric Plains Villagers are interpreted archaeologically by the presence of diagnostic ceramics and lithic tools across a wide area, despite differences in architecture and agriculture. As one of the most western late prehistoric farmsteads, the site of Albert Bell (AD 1270-1300) exhibits characteristics of both western and central Plains inhabitants. This paper focuses on analysis of the archaeofauna recently excavated at the site. We will discuss innovative analytical methods including extensive refitting. These results along with recent pottery analysis (Roper et al. 2004) enhance our abilities to address issues of local production, interregional connections, and daily lives.

**Scherer, Andrew K. (Wagner College), Golden, Charles W. (Brandeis University), Muñoz, A. René (University of Arizona) and Houston, Stephen D. (Brown University)**

[190] *Classic Maya Political Geography: Archaeological Explorations in the Piedras Negras-Yaxchilan Border Zone*

Border studies can answer questions concerning community identity, political integration and economy, especially in complex societies. Aside from limited survey, such studies have not been widely conducted in the Maya area. The Sierra del Lacandón Regional Archaeology Project has

completed three years of research investigating the border zone between the Classic Maya kingdoms of Piedras Negras and Yaxchilan. Archaeological and epigraphic data indicate that each polity developed distinct strategies for hierarchical control within the body politic, resulting in two distinct political formations, as Piedras Negras and Yaxchilan transformed themselves from minor Early Classic centers to dominant Late Classic powers.

**Schick, Kathy [17]** *see Toth, Nicholas; [17] see Stout, Dietrich*

**Schieber de Lavarreda, Christa (Tak'alik Ab'aj National Project Ministry of Culture and Sports) and Popenoe Hatch, Marion (Tak'alik Ab'aj National Project)**

[9] *Questions to be Answered at Tak'alik Ab'aj in Reference to Future Investigations on the South Coast*

The archaeological investigations at Tak'alik Ab'aj during recent years have made significant advances in understanding the development of this ancient city and the region of the South Coast. These advances have opened up new questions and have put into perspective topics which require more attention, especially those involving the directions to be taken for future investigations. They also highlight the need to focus on these questions within the concept of interaction between the diverse regions of the South Coast during its history.

**Schiegl, Solveig (University of Tübingen), Ligouis, Bertrand (Laboratories for Applied Organic Petrology (LAOP) Tübingen), Goldberg, Paul (Boston University) and Conard, Nicholas (University of Tübingen)**

[143] *Experimental Archaeology, Bone Fires, and Palaeolithic Behavior*

Fire represents a major technological and behavioral development in human evolution. At Hohle Fels Cave, Swabian Jura, a high burnt bone/ fine charcoal ratio indicates bone as a prominent fuel during the Last Glacial. Micromorphology and microchemical analysis of a burnt bone layer indicate a discard zone away from the original combustion zone. To better understand the burning qualities of bone, 30 kg were burnt in an experimental campfire with measurements from soil micromorphology, coal petrology, electron microscopy, temperature properties of the substrate and the combustion products. The results are compared to burnt bone layers from Old World Palaeolithic sites.

**Schieppati, Frank [176]** *see Cinquino, Michael A.; [35] see Hanley, Robert*

**Schiffer, Michael B. (University of Arizona)**

[110] *The Tyranny of the Statistical Paradigm in Archaeology*

James Hill and other early processualists exploited the availability of computers and statistical packages to launch a distinctive statistical archaeology. In using these powerful tools, archaeologists assumed that the past behavioral patterns of interest were faithfully preserved and that their traces conformed to statistical requirements. This assumption has been overturned by decades of research on formation processes, including reanalyses of Hill's study of Broken K's marital residence patterns. Regrettably, archaeologists continue to publish analyses as deeply flawed as those of the early processualists. This paper discusses the appalling state of statistical analysis in archaeology.

**Schindler, Bill (Monmouth University)**

[243] *Migratory Fish Resources and Delaware Valley Prehistory*

Assumptions concerning Middle Woodland settlement and subsistence patterns in the Delaware Valley are largely based upon the presumed exploitation of the upstream migration of anadromous fish. This relatively narrow perception of the migratory fish resource is incomplete and should be expanded to include not only other aspects of anadromous fish life cycles but other migratory fish as well. Archaeological, ethnohistorical, ethnographical, biological, and experimental data are combined to offer a holistic representation of the migratory fish resource in the Delaware Valley during the Middle Woodland period and its impact on our understanding of Middle Woodland life.

**Schlanger, Sarah (New Mexico Bureau of Land Management)**

[148] *Learning and Teaching: Using a Public Planning Process as a Teaching Tool*

The Old Spanish Trail, a 19th century trade route between colonial settlements in New Mexico and California, has been called the longest, crookedest, most ornery pack trail in the United States. GIS-based interactive "publications" are being used to introduce the trail to the public, to engage the public in planning for trail development, and to develop alternatives for managing



and protecting trail resources. Among the chief challenges are: 1) presenting trail resource data along a 2,700-mile corridor; 2) evaluating proposed route alternatives in the absence of physical trail traces; and 3) protecting trail resource data and discouraging trail "prospecting."

[46] *see Wisely, Sally*

**Schloen, David (University of Chicago) [184] Discussant**

**Schmich, Steven (Arizona State University)**

[199] *Local Actions in Global Context: Adapting to the Holocene in Iberia*

The transition from Pleistocene to Holocene remodeled the world in ways strikingly similar to those noted by the frameworks convention for the Kyoto Protocol. The Iberian Peninsula is a natural laboratory for understanding these processes. From demographic shifts in the Cantabrian refugium to relative constancy in the Mediterranean region, it is a crossroads where widespread European influences overlapped distinctive Iberian traditions. The introduction of agriculture further diversified the patchwork of subsistence strategies. Adaptation to the Holocene in Iberia forms a baseline for understanding the social and economic dynamics of local human response to global climate change.

[107] *see Peebles, Matthew*

**Schmidt, Christopher [132] *see Allegretto, Kimberly***

**Schmidt, Kari (Los Alamos National Laboratory/University of New Mexico)**

[228] *Similarities in Variation: Two Middle Coalition Period Roomblocks on the Pajarito Plateau, New Mexico*

The Department of Energy (DOE) is in the process of conveying lands to the County of Los Alamos and to the Pueblo of San Ildefonso. These lands are located in tracts that contained archaeological sites in areas suitable for commercial and/or residential development by Los Alamos County. Two Middle Coalition period (AD 1200 to 1250) roomblocks, located some 500 meters apart, were excavated in one of these tracts. This paper compares and contrasts the major characteristics of these linear-shaped roomblock sites and uses this information to address the formation of social identity on the Pajarito Plateau during the Coalition period.

**Schmidt, Morgan (University of Florida) and Heckenberger, Michael (University of Florida)**

[146] *Amazonian Dark Earths: Implications for Archaeology and Sustainability*

This paper summarizes recent research on Amazonian dark earth soils (ADE). ADE, or "terra preta," is a primary indicator, and perhaps even explanation, of the large, complex societies currently known from various parts of the region, and has broad implications for contemporary economic development. It has been seized upon by popular and scientific media, but few in-depth ethnographic or archaeological studies have been undertaken. Recent research on ADE are summarized and preliminary results of archaeological and soil sampling in the Upper Xingu region of southern Amazonia are discussed, particularly in light of issues of sustainable development.

**Schmidt, Sarah E. (Hamilton College), Beck, Charlotte (Hamilton College) and Jones, George T. (Hamilton College)**

[138] *Edge Offset Indices in Biface Stage Analysis*

Archeologists have recommended developing morphology indices to serve in testing the reliability of biface stage typologies. While indices that measure progressive changes in the size and mass of bifaces have proved useful, we describe an independent approach based on edge sinuosity or offset. This index measures the divergence of a biface edge from linearity. Results of application of the index to biface samples from several Paleoarchaic sites in the central Great Basin show good agreement with thinning indices and help to delineate regional patterns of biface manufacture and transport.

**Schneider, Kent (USDA-Forest Service), Fulton, Harold (Earth Measurement Corporation), Letot, Sunny and Goodman, Dean (Geophysical Archaeometry Laboratory)**

[22] *Very Large Area GPR Surveys: The Calvary Hill Cemetery*

The Calvary Hill Cemetery in Dallas County, Texas, consists of 25 acres scheduled for cemetery expansion. The area is just north and contiguous to the existing Calvary Hill Cemetery which dates to the early 1800s. This paper discusses ground penetrating radar conducted over the 25 acres at 2-foot intervals and interpretations of imagery from post-

processing the data. An EM61 was also deployed over the entire site and that data was overlaid on the GPR data. The combined imagery shows what may be subsurface burials, structures, and roads.

**Schneider, Kent [22]** see Goodman, Dean; [22] see Garrison, Ervan; [225] see Bergstrom, Velicia; [22] see Jones, Stephen

**Schneider, Tsim [41]** see Panich, Lee

**Schneyder, Stacy (Jones & Stokes)**

[42] *A Successful Union Between Historical Map Data and GIS? A Case Study of Two Urban Historical Archaeological Excavations in California*

GIS has become one of the many multidisciplinary tools used by archaeologists. GIS has been incorporated into the historical research and planning stages of urban historical archaeology projects to create historic map layers overlaid onto modern maps to locate sensitive archaeological areas and to design and implement archaeological testing and data recovery projects. Two examples of this successful "union" include the Doyle Drive Project on the Presidio of San Francisco and the Downtown Stockton Redevelopment Project in California, where GIS layers containing historic map information from multiple time periods were integral to creating predictive maps of where significant cultural deposits were located.

**Schoenfelder, John (UCLA)**

[80] *Toward Mapping a Landscape of Interdependence: The Spread of Wet-Rice Irrigation on Bali*

In recent centuries, Balinese farmers working neighboring village-level irrigation systems have been bound into webs of interdependence by issues of water and pest control. By promoting membership overlaps between villages and agro-managerial groups, this seems to have affected the evolution of social organization. To advance understanding of how landscape factors contributed to this phenomenon, data on extant irrigation systems and archaeological find-site distributions are combined and supplemented with sub-surface tests and additional geospatial information to build a tentative regional synthesis mapping the expansion of irrigated agriculture in the research area (Gianyar Regency, Bali, Indonesia) over the last 2000 years.

**Schoeninger, Margaret J. [10]** see Kellner, Corina M.

**Schofer, Jeanne (Northern Arizona University)**

[99] *An Examination of Settlement Variability at Wupatki National Monument, A.D. 1070-1160*

Settlement of the complex prehistoric landscape of Wupatki National Monument has long interested archaeologists. This is due to the eruption of nearby Sunset Crater Volcano in the 11th century as well as Wupatki's location as a frontier zone between groups using different plain ware ceramics. This study uses weighted mean ceramic dating of the Wupatki Archaeological Survey database and in-depth analysis of a sample of early sites to develop a more detailed understanding of the material correlates of early agricultural settlement. Results suggest geographically-conditioned variability in initial settlement strategies. The implications in the context of a frontier setting are explored.

**Schofield, John (English Heritage)**

[121] *Symmetry and Consilience in Heritage Management Practice: A new New Archaeology*

In England heritage management practice has traditionally been concerned with that which is truly historic, from antiquity even. But gradually that distant past has been creeping up on heritage practitioners. One aspect of a new characterisation programme explores the character of the later twentieth century landscape, not as a pollutant, destroying the "idyll" that existed previously, but as a contributor to landscape character. It is this new archaeology, of perceptions, artistic interventions and larger scale spatial enquiries that I will address here, giving a new-found symmetry to heritage management practice, filling the gaps we didn't know existed until very recently.

**Schofield, John [6]** see Beck, Colleen

**Schollmeyer, Karen Gust (Arizona State University) and Mapes, Sarah (Arizona State University)**

[118] *Architecture, Population, and Human Legacies on the Agua Fria National Monument*

The Legacies on the Landscape project concerns identifying long-term legacies of human land use on the environment of the Agua Fria National Monument. Reconstructing the size and

duration of human occupations is an important component of such endeavors, as these factors profoundly influence characteristics of human impacts. Architectural studies at two large fourteenth-century pueblos included detailed mapping of wall alignments and construction methods and materials. Mapping results indicate each site was built over multiple construction phases rather than in a single short building episode. This pattern affects interpretations of population history and potential signatures of prehistoric land use.

**Scholnick, Jonathan (University of Arizona)**

[5] *Here Lyes Ye Spatial Patterns: Epitaphs of Cultural Transmission from Historic New England Cemeteries*

The diffusion of artifact design styles distorts regional chronologies based on frequency seriation. This study revisits James Deetz and Edwin Dethlefsen's study of historic New England gravestones to examine the spatial patterns of stylistic diffusion. Stylistic diffusion can be traced through time with the spatial and temporal controls gravestones offer. Interpolation methods and autocorrelation measures that were unavailable in the 1960's are used to identify spatial processes. Cultural transmission of carving styles is inferred from the temporal and spatial patterning of idiosyncratic carving traditions. Broader cultural changes are inferred from the spread of regional consumption preferences.

**Schon, Robert (University of Arizona)**

[201] *Archaeology and Vigilance: Experimental Contributions to Regional Survey Methodology*

This paper examines various sources of bias that affect the archaeological document produced by surface surveys. Such biases include variation in ground visibility, artifact size, and field walker ability. I address these variables through a series of field seeding experiments conducted under the auspices of the Eastern Korinthia Archaeological Survey in Greece. The experiments were designed specifically to test the methods developed by Mediterranean surveys, however, the results are applicable anywhere surface survey is practiced. In addition, I incorporate aspects of vigilance theory in order to explain why some of these biases occur.

**Schortman, Edward (Kenyon College)**

[234] *Contesting for Power in the Prehistoric Naco Valley, NW Honduras: Two Millennia of Changing Power Relations in an Agrestic Landscape*

Research conducted in the 100km<sup>2</sup> Naco valley, NW Honduras reveals a long history of shifting power structures. From the Middle Preclassic (1200-400 BC) through the Late Postclassic (AD 1300-1500), degrees of political centralization varied as did the ways in which power relations were structured. Corporate bodies of various sorts exercised suzerainty during most of this span save for the Late Classic (AD 600-800) when charismatic magnates briefly seized power. Factors underlying this failure of individualized rule are considered as are the consequences of enduring corporate political principles for the structure and operation of Naco's agrestic centers.

**Schreiber, Katharina (UC Santa Barbara)**

[116] *Huari Urbanism in Middle Horizon Peru*

Inspired by recent reconsiderations of the evolution of ancient states and archaeological approaches to them, this paper addresses the nature of Middle Horizon Huari, and its interactive relationship with the polity of which it was capital. Briefly considered are the pre-MH foundations of the city, changes in the city's size and configuration during the MH, its relationship to its immediate hinterland, and its place within a polity-wide network of administrative sites. I conclude that Huari's emergence and transformation during the MH was intimately tied to the emergence and growth of the state/empire, and vice versa.

**Schriever, Bernard [75] see Gruber, Thomas**

**Schroeder, Bryon (University of Wyoming)**

[222] *Temporal Analysis of "Defensive" Sites in the Wyoming Region*

The objective of this research is to define "defensive" as it applies to archaeological sites in Wyoming and to determine with which time period these sites are associated. Re-examination of sites located within largely inaccessible terrain or that include intact architectural features are the focus of defining both the age and characteristics of defensible sites within Wyoming. Preliminary results indicate that Wyoming's defensive sites correlate with known periods of conflict in the American Southwest and the Great Plains region. From this it may be possible to develop a model for cultural characteristics that are associated with prehistoric warfare.

**Schroedl, Gerald [31]** *see Klippel, Walter*; **[5]** *see Camp, Jennifer*; **[52]** *see Ahlman, Todd M.*

**Schulenberg, Janet [194]** *see Lovis, William*

**Schulting, Rick (Queen's University Belfast)**

**[128]** *Interpersonal Violence in Neolithic Britain*

Interpersonal violence is a powerful expression of human social interaction. Yet a consideration of violence in the past has done relatively little to inform discussions of the British Neolithic. A recent examination of some 350 crania reveals a number of healed or unhealed injuries suggestive of interpersonal violence. These data are used as a platform to discuss possible contexts for, and consequences of, violence. It is argued that, regardless of its actual prevalence, the reality or the threat of violence can have an important affect on both the behaviour of individuals and the structure of society.

**Schultz, T. Clay (University of Texas), Walker, Chet (University of Texas), Jacobs, Johnnie (Muscogee Creek Nation), Thompson, Tim (Muscogee Creek Nation) and Somers, Lewis (Geoscan Research USA)**

**[22]** *2005 Geophysical Surveys at the Etowah Site in Northwestern Georgia*

This paper presents the results of geophysical surveys conducted at the Etowah site by a multi-institution crew in the summer of 2005. Although Etowah, an important Mississippian period center, has seen over a century of archaeology, the entire site has never been examined systematically and no map exists of all old excavations. The goal of this project was to demonstrate that subsurface features and old excavations could be detected using GSSI SIR-3000 ground penetrating radar, a Geoscan Research RM15 Resistance Meter, and an FM256 Fluxgate Gradiometer. Among the features detected were structures on the summit of Mound A, the palisade wall, and excavation units.

**Schulz, Margaret (Colorado State University), Rush, Laurie (US Army, Ft. Drum) and Wood, Amy (Colorado State University)**

**[66]** *Fossil Islands: A Potential Maritime Context in the Northeast*

Discoveries on an island in what was once glacial Lake Iroquois are challenging our understanding of early Native American occupation in the region. Artifacts demonstrated by wear analysis to be consistent with wooden boat-building were recovered from associated shore line features. The island assemblages, which are morphologically similar, include quartz drills, punches, a prismatic blade, a polyhedral microblade core, fossil shell and a pestle with red ochre residue. Debitage is predominantly rose quartz, an exotic lithic material for the region. Based on their location and elevation these finds may be consistent with Paleo-Indian occupation and maritime activity.

**Schulz, Margaret [172]** *see Rush, Laurie*

**Schulze, Niklas (FFyL-IIA/UNAM)**

**[236]** *Technological Choices as Link between Environment, Society and the Object; Copper Bells from the Templo Mayor (Mexico)*

The 3.400 copper (alloy) bells from offerings included in successive building phases of the Templo Mayor of Tenochtitlan (Mexico City) are the results of production processes influenced by social, economic, ideological and technological factors. Morphological and compositional (XRF) analysis, as well as comparison with other Mexican bells, gave insights into the mechanisms used to supply the Templo Mayor with offerings, the organisation of metalwork and the rational behind some of the technological choices of the artisans. The time-depth of the offerings allows seeing an evolution of the system.

**Schurmans, Utsav (University of Pennsylvania), Dibble, Harold (University of Pennsylvania), McPherron, Shannon (Max Planck Institute), Sandgathe, Dennis (Simon Frazer University) and Turq, Alain (Musée Nationale de Préhistoire)**

**[76]** *Assessing Excavation and Curation Bias: An Example from the Middle Paleolithic Site of Roc de Marsal (Dordogne, France)*

Museum collections form an important set of resources for paleolithic archaeologists, though it is often difficult to evaluate the nature and degree of biases that may have been operating in older excavations. In this paper we examine excavator and curation bias in the recovery of material from the French Middle Paleolithic site of Roc de Marsal. This is accomplished by comparing recently excavated samples with those available from previous excavations, including analysis of

material recovered from former backdirt piles. References will also be made to biases noted in other collections studied by the authors.

**Schurr, Mark (Notre Dame) and Hayes, Robert (Notre Dame)**

[44] *Combining Electron Spin Resonance (ESR) and Fourier Transform Infrared Spectroscopy (FTIR) to Refine Isotopic Reconstructions of Charred Bones*

Electron spin resonance (ESR) can be used to determine the thermal history of charred bones and to reconstruct their original stable carbon- and nitrogen isotope ratios prior to thermal alteration. This approach has produced mixed results when applied to prehistoric bones, probably because of the complex diagenetic burial environment. In this poster we show that fourier transform infrared spectroscopy (FTIR) provides information about the chemistry of charred organics that can be used to refine isotopic reconstructions of charred bones.

**Schurr, Theodore G. (University of Pennsylvania)**

[84] *Coastal Waves and Island Hopping: A Genetic View of Caribbean Prehistory in the Context of New World Colonization*

Archaeological evidence suggests that human groups first expanded into the American continents between 15,000-20,000 years ago, and likely used coastal migration routes to spread throughout the New World. However, they apparently did not reach the Caribbean region until after occupying much of the mainland areas of the Americas, probably between 5,000-6,000 YBP. The next several thousand years saw the emergence of Ciboney, Arawak and Carib cultures in this region. This paper will review the available biogenetic evidence for the settlement of the Caribbean, and discuss these data in the broader context of the peopling of the Americas.

**Schütt, Rolf (Architect - World Heritage Consultant)**

[148] *Positive Side-effects of the Implementation of GIS on Heritage Management in Developing Countries*

Geographical information systems (GIS) are technologies unquestionably advantageous for resource management. Given that three quarters of the world's population live in developing countries, recent interest has focused on the benefits of GIS in resource management in such countries. However, the implementation of new technologies in developing countries faces additional challenges. Establishing computer-aided information systems demands a clear vision and setting up a registry of resources with a GIS involves a careful assessment of needs and expectations. This paper suggests how existing management strategies can be adapted to the local work environment, especially in the example of heritage protection in Bolivia.

**Schwadron, Margo (National Park Service)**

[8] *Domestic Accumulations, Social Constructions and Ceremonial Centers: Spatial Patterning of Shell Middens in the Ten Thousand Islands, FL*

The Ten Thousand Islands are an archipelago of semi-tropical mangrove islands, marine meadows, and shallow backswamp bays located along the coastal Everglades, Florida. Dotted along this chain of islands are dozens of shell midden sites, including midden piles, mounds, ridges, and massive shell work sites, which contain complexes of intricately arranged shell. Examining these site types, the spatial patterning and internal structures of shell middens will be explored, and interpretations about site function and formation processes offered. This will provide a regional perspective on various descriptive shell midden types in their interpretative analogues (e.g. camps, villages, ceremonial centers).

[248] *see Means, Guy H.*

**Schwake, Sonja (UCSD)**

[164] *Heterarchy: A Lesser Elite Strategy of Mortuary Representation in the Maya Lowlands of Belize*

Actors employ various status-building strategies within highly stratified, hierarchical societies. One such strategy emphasizes horizontal ties of identification within cohorts. This paper examines mortuary data from Belizean sites in the Maya Lowlands to show how lesser elites created status identities based on specialization. These mechanisms of heterarchic group representation do not simply emulate the tactics of the apical elites at a site, but rather, entail a unique strategy on the part of these lower status elites.

**Schwallie, Brandy [251] *see Tillquist, Christopher***

**Schwarcz, Henry [162]** *see Richter, Daniel*

**Schwartz, Lauren (University of California, Riverside), Barnes, Edwin (Kenyon College) and Stockett, Miranda (University of Pennsylvania)**

[234] *Tools of the Trade: The Significance of Variation in Potstands from Las Canoas and Its Neighbors*

Excavations at Las Canoas, NW Honduras recovered a previously unknown artifact class, potstands. These ceramic items, resembling large jar rims/necks, come in two classes: ones made deliberately as potstands, and ones recycled from broken jars. The stands vary in these ways: the clays used to make them; aperture diameter; height; shape; use as a support while vessels were being shaped; use as kiln furniture, where they do not appear to be classic saggars, separating stacked vessels, but individual vessel supports; distributions and concentrations at Canoas and its dependent sites. This paper examines the significance of these variations within the potstand category.

**Schwartz, Mark (Grand Valley State University)**

[232] *Shrines, Plastered Horns and Sacred Hearths: Recent Evidence for Ritual and Transcaucasian Contact at Tilbes Höyük, Turkey*

Salvage excavations at the site of Tilbes Höyük, located on the Euphrates River in southeastern Turkey have uncovered remains of what appears to have been a small shrine dating to the Early Bronze Age. The architecture of the building along with the presence of plastered surfaces, burnt seeds, burnt animal horns, and 2 pairs of plastered mudbrick horns or andirons attest to the specialized function of the structure. In addition, the artifacts and organization of the building suggest a Transcaucasian influence in this area of Anatolia. This paper will further examine the connections between these distinct cultural areas.

[232] *see Erdman, Katherine*

**Schwarz, Kevin (ASC Group, Inc.) and Mount, Jerry (University of Iowa)**

[148] *Eco's Eye: Semiotic Approaches to Designing a New Computer Application for Visualization of Spatially-Distributed Archaeological Data*

Jacques Bertin's semiotics of graphics posits a model of human communication of graphic information. Using this model of communication with signs, we identify Bertin's visual variables as a basis for the visualization of spatially-distributed archaeological data. The visual variables are used in the design of a Flash animation application. This is an open source internet-based analysis tool to explore spatial statistical patterning of surface-collected artifact data from a multi-component prehistoric site in Ohio. Data visualization aids in understanding complex palimpsests of spatially-distributed artifacts is an activity that can improve archaeological research and education.

**Schwendler, Rebecca (University of New Mexico)**

[150] *Visual Displays and Social Strategies in Magdalenian Western Europe ca. 17-11,000 BP*  
Magdalenian-age hunter-gatherers in Western Europe used large numbers and/or similar kinds of visual displays—including exotic materials, personal ornamentation, and decorated objects—at certain times and places. In an extensive study, I determined that length of time since regional colonization—more than population density—encouraged social competition and the use of those visual signals. Evidence from newly (re-)colonized regions (e.g., Middle Magdalenian Pyrenees; Upper Magdalenian West-Central Germany) illustrates those findings and contrasts with that from continuously inhabited regions (e.g., Southwestern France; Cantabrian Spain), broadening the range of variability known for prehistoric hunter-gatherer social organization.

**Scott, Ann M. (University of Texas at Austin)**

[64] *Communicating with the Ancestors: Kaqchikel Maya Cave Ceremonies in Guatemala*  
Locations in the natural landscape such as caves, mountains, or rock outcrops represent sacred venues for indigenous groups where communication with ancestors or spirits occurs through ritual acts. Investigations have demonstrated this for both ancient and contemporary Maya. What is the relationship between the past and the present among users of the sacred landscape? Drawing on ethnographic field investigations among Kaqchikel Maya speakers in Guatemala, this paper examines traditional ceremonies as performed by ajq'ija or ritual specialists. The continuum of Maya ceremonial traditions from ancient to the contemporary is examined and their implications for archaeological studies are considered.

**Scott, Douglas [247]** *see Carlson-Drexler, Carl*

**Scott, Patrick (University of Chicago)**[95] *Foreignness in the Late Moche Jequetepeque*

This paper examines the role that foreignness played in the construction of social value in Late Moche period Jequetepeque society. Foreign materials often appear in the form of personal adornments and goods included in tributes to high-status personages, suggesting that the movement of foreign goods may have been a critical part of maintaining social difference. However, access may have been limited on the basis of group affiliation, time of exchange, and/or degree of foreignness. These issues will be addressed with data drawn from excavations at the San Ildefonso site, as well as research elsewhere in the valley.

**Scott, Rachel E. (University of Pennsylvania)**[114] *Conversions of Scale: The Interplay between Archaeology and History in the Study of Early Christian Ireland*

Because the texts from early historic periods are limited in both number and kind, scant historical information is often used to characterize broad geographic and temporal spans. Such generalization, however, obscures both contemporary variation in cultural practices and the processes of cultural change. We can obtain a more nuanced understanding of early historic societies by integrating local and regional archaeological data with the documentary evidence. This paper explores ways of reconciling the divergent scales of archaeology and history through a consideration of the conversion to Christianity in early medieval Ireland.

**Scott, Randi [5]** *see Deslatte, Kaitlin*

**Scott, Sue (Independent Scholar)**[147] *Maya Symbols of Power on Teotihuacan Figurines*

Within the corpus of terracotta figurines from Teotihuacan, a few examples have emblems or insignia that are analogous to the names of a few Early Classic period Maya rulers. The Teotihuacan-Maya connection has been recognized, but in the Maya area the architectural, ceramic and glyphic evidence for a Teotihuacan presence is over-balanced, compared with the paucity of similar features at Teotihuacan. The figurines refer to Maya nobility at the cities where Teotihuacan presence is predominant, suggesting a social and political reciprocity that has gone unnoticed. The comparative images are discussed in the context of graphic content and style, as well as chronology.

**Scott, Sue [119]** *see Diehl, Richard*

**Scuderi, Louis [143]** *see Greene, Mary K.*

**Seales, W. Brent [126]** *see Landon, George V.*

**Seaman, Timothy (Valles Caldera National Preserve) and Steffen, Anastasia (Valles Caldera National Preserve)**[39] *Walking on Broken Glass: 2005 Survey on Cerro del Medio*

Despite the renown of Cerro del Medio as a major southwestern U.S. obsidian source, private ownership has severely restricted past archaeological investigations. During the 2005 season, the VCNP Cultural Resource Program conducted the first systematic block survey on Cerro del Medio. Site documentation in the 475-acre survey area provides a representative sample of diverse surface assemblages that range from discrete clusters of biface-reduction debitage to enormous quarries atop obsidian-rich geological deposits. The survey design incorporated recent geological data, providing an opportunity to fully integrate geological and archaeological investigations and overcome inadvertent bias in previous obsidian sampling.

**Searcy, Michael (OU) and Holthuysen, Jaime (ASU)**[160] *Moving From a Grinding Halt: Expanding the Interpretation of Groundstone through Ethnoarchaeology*

Some of the most ubiquitous artifacts found at archaeological sites across Mesoamerica are manos and metates. Yet these important household implements continue to be underrepresented in the archaeological literature. This paper highlights recent ethnographic research on groundstone produced and used by four Mayan communities in Guatemala. We demonstrate how the size of grinding surfaces can be indicative of function, and how modern taboos can be examined to explore notions of gender. Groundstone from the site of La

Quemada, Mexico is then analyzed in light of such inferences to evaluate the consistency of archaeological patterning with ethnographic observations.

**Sears, Erin L. (Smithsonian Institution)**

[147] *Multiple Levels of Meaning: Figurine Patterns at Cancuén, El Petén Department, Guatemala*

Six excavation seasons at the Late Classic polity of Cancuén has yielded abundant figurine remains, which have proved to be amenable to varying levels of analytical exploration. This portable art form permits insights into the roles that it might have played in Cancuén society, as domestic markers or as components in thematically-charged trade relationship. The multiple levels of meaning found in the nature and distribution of figurines at Cancuén is viewed within the larger perspective afforded by the study of other figurines recovered along the riverways in the region.

**Sebastian, Lynne (SRI Foundation) [214] Discussant**

**Seeman, Mark [100] see Nolan, Kevin**

**Seibert, Jeffrey (University of Calgary)**

[164] *Social Status and Spatial Organization in Classic Maya Residential Architecture: Insights from Belize*

This paper seeks to examine the correlation between social status and spatial segregation in residential architecture that ethno-archaeologist Susan Kent posited existed in complex societies. In particular, this paper seeks to examine the correlation between social status as can be inferred through the examination of residential architecture and the degree of spatial partitioning and segregation that can be inferred through space syntax analyses of these architectural groups. This paper revisits some of the data gathered as part of the author's M.A. thesis, but examines the data from a new theoretical and methodological standpoint.

**Seidel, Andrew [100] see Grimm, Linda**

**Seifert, Donna (John Milner Associates) [45] Discussant**

**Selig, Ruth (Smithsonian) and Brooks, Alison (George Washington University)**

[134] *We Have Met our Ancestor and He is Us: Teaching Archaeology Through Robert Humphrey's AnthroNotes Cartoons*

For the late Robert Humphrey, self-examination of his identity as archaeologist and artist led to a broad reflexive commentary on archaeology and archaeologists. His cartoons reflect a profoundly reflexive view of human origins, making explicit the role of the archaeologist in telling a story based on data. This paper focuses on the "Early Ancestor" cartoons published in AnthroNotes, reflecting Humphrey's original interest in PaleolIndians, the eastern Eurasian paleolithic, and the settlement of the New World. Examining and teaching archaeology through these amusing, insightful cartoons reveals Humphrey's own imaginative world, its recurring iconic figures, values, norms, social networks, and enduring insights.

**Sellen, Adam (Unidad Académica de Ciencias Sociales en Merida, UNAM)**

[181] *The Destruction of Tomb A, Xoxocotlán, Oaxaca*

In 1886, a spectacular Zapotec tomb was unearthed in Xoxocotlán, Oaxaca. The structure, consisting of an elaborate stucco façade and sealed by a stone slab inscribed with hieroglyphic writing, was one of the first ancient monuments Leopoldo Batres attempted to conserve as Inspector of Archaeological Monuments. Unfortunately, he failed to save the crypt for posterity, and by the 1920s it had been completely obliterated by the forces of nature and by looting. In my discussion I will outline the events that led to the tomb's destruction, and reconstruct the structure and its contents using a variety of documentary sources.

**Sellet, Frederic (University of South Florida)**

[217] *How Late is Late?*

When can we start talking about a Late Paleoindian period? Data from the Jim Pitts site in South Dakota suggest a major change in behavior shortly after 10,000 y B.P. This paper reviews the available evidence on the Northern Plains. It will pay special attention to the shifts in technological organization and correlate these to other sets of evidence.

**[135] Discussant**



**Semaw, Sileshi (Stone Age Institute, Indiana University)**[17] *The Oldowan at Gona (2.6-2.5 Million years), Afar, Ethiopia*

The Gona sites document the oldest stone artifacts dated to 2.6-2.5 million years (Ma). During the early 1990s thousands of artifacts predominantly made of trachyte and rhyolite were systematically excavated from EG-10 and EG-12. Recently, a large number of sites were documented from widely distributed contemporary deposits, and systematic excavations at OGS-6 and OGS-7 have produced artifacts and associated fragmentary bones providing a direct evidence that the earliest stone tools were used for processing animal carcasses. The makers had sophisticated understanding of conchoidal fracture mechanics, they selected for raw materials with good flaking qualities and produced sharp-edged cores and flakes primarily used as cutting tools. The technology of the oldest artifacts from Gona shows a clear affinity with the Oldowan Industry.

[17] see Toth, Nicholas

**Semon, Anna M. (American Museum of Natural History), Santoianni, Kimberly, Wexler, Jennifer and Hayden, Lauren R. (Hunter College)**[103] *Blessed Vessels: Research and Analysis of Historic Ceramics Excavated from Mission Santa Catalina de Guale*

Recent laboratory research and analysis of historic ceramics excavated from a Spanish mission off the coast of Georgia utilized various GIS programs, in conjunction with a refitting program. These methods were used in an effort to distinguish taphonomic processes on the ceramic collection, as well as analyze the distributional data. This poster will discuss the methods used and their ability to isolate taphonomic processes; and present distributional data of the ceramics types and ramifications of the distributional data, including spatial analysis within the mission between public/private and sacred/profane space.

Semon, Anna M. [79] see Kick, Maureen S.

Senior, Louise (Independent) [88] *Discussant*

Senna, Cristina [77] see Pereira, Edith; [90] see Lopes, Paulo do Canto

**Serafin, Stanley (Tulane University) and Peraza Lope, Carlos (INAH Yucatan)**[132] *Reconstructing Mayapan's Population*

This paper reports on investigations of dental metric and nonmetric trait variation in human remains to reconstruct the ancient population of Mayapán, Yucatán, México, recognized as the most important Maya city of the Late Postclassic period (ca. 1200-1450 AD). This interdisciplinary study utilizes bioarchaeological methods that provide a valuable means of independently testing colonial accounts of the population structure at Mayapán. Numerous social groups with distinct geographic origins are said to have been present, such as the Cocom, Tutul Xiu, Kowoh, and Ah Kanul. Hypotheses ascribing specific art, architectural, and burial styles to each will be tested.

**Serpa, Katy (Rochester Museum & Science Center)**[96] *Cultigens of the American Northeast: A Phytolith Study*

The aims of this research are to create a phytolith reference collection for commonly utilized cultigens in Northeast American prehistory. Twenty species were selected for this study and the presence or absence of morphologically diagnostic phytoliths was determined. Phytoliths are opaline silica bodies which occur in the stems, leaves, roots, and inflorescences of plants. Since phytoliths are mineral, they resist decay and do not require a particular preservation condition. As a result, phytoliths are a practical tool in archaeology and paleoecology. Phytoliths recovered from archaeological contexts are examined and compared to typologies from reference collections using the methodological approach of uniformitarianism.

Serra, MA. Carmen [142] see Arce, Carlos Lazcano

**Serra Puche, Mari Carmen (Instituto de Investigaciones Antropológicas) and Lazcano Arce, Jesús Carlos (Escuela Nacional de Antropología e Historia)**[221] *Indicadores Arqueológicos Sobre la Interacción entre Xochitecatl-Cacaxtla-Nativitas y el Área Maya*

Los trabajos de exploración realizados en los sitios de Cacaxtla, Xochitécatl y Nativitas en el Altiplano Central en Mesoamérica ha determinado la existencia de diversos rasgos y

elementos culturales provenientes del área maya. Muchos de ellos se sustentan en el ámbito icnográfico representado en los murales pintados y localizados en el "Gran Basamento" de Cacaxtla. En esta ponencia se muestran algunos indicadores arqueológicos que establecen diversos procesos de interacción entre los que se destaca el de intercambio de ideas y bienes. Interacción que se dio desde periodos tempranos como el Formativo y posteriormente el Epiclásico.

**Setzer, Teddi J. [30]** *see Tykot, Robert H.*

**Sever, Thomas L. [48]** *see Griffin, Robert E.*

**Severson, Elizabeth (University of Wisconsin-Madison)**

[252] *Stone Tools in the Scandinavian Iron Age*

Despite the common belief that stone tools quickly disappear during the Iron Age in Scandinavia, flint continues to be an important raw material, used alongside iron, through the Middle Ages. Though this topic is under-researched, it has great potential for illuminating economic life in the Iron Age. An analysis of 241 Swedish sites excavated from 1970 to 1996 indicates that the presence of flint at sites through Southern Sweden decreases from the Late Bronze Age through the Middle Ages, but does not disappear completely. This paper argues that lithic analysis should be an integral part of interpretations of Iron Age sites.

**Sewell, Andrew (Hardlines Design Company)**

[250] *Archaeology at Wisdom's Paradise: Excavations at the North Family Lot of the Shaker Community of Union Village, Ohio*

This paper presents a brief overview of archaeological research performed at Shaker Site D/33WA407, the North Family Lot at Union Village, Ohio. Union Village was the largest Shaker community in Ohio and arguably the most important Shaker community in what was then the western frontier. The paper will present the results of fieldwork and archival research, and discuss how the North Family Lot related to Union Village as a whole and how information from this project can illuminate Shaker lives, relationships and tensions at this locus of craft and agricultural production at Union Village.

**Shackel, Paul (University of Maryland)**

[124] *Memory and the Making of Heritage*

Archaeological sites can be used as places to remember the past and commemorate a specific event or moment. These places can provide a venue for civic engagement, through interaction with and the inclusion of community groups in interpretation, education, planning and preservation of cultural places. Civic involvement in heritage development can help create a specific memory of the past and foster social change. For successful civic engagement, communities must make connections between heritage and contemporary social, cultural, and/or political issues. Engaging the public to help foster social change is a way to make places useable to a wider audience.

[5] *see Hargrave, Michael*

**Shackley, M. Steven [172]** *see Dillian, Carolyn*

**Shady Solis, Ruth (Directora del Proyecto Especial Arqueológico Caral-Supe/INC)**

[53] *El Sistema Social Identificado en Caral-Supe y su Impacto en los Andes Centrales*

La investigación científica es un proceso que permite mejores aproximaciones al conocimiento de nuestro objeto de estudio y en el cual participan un conjunto de investigadores a través del tiempo. Así las evidencias arqueológicas y las interpretaciones planteadas por Tello, Kosok, Moseley, Feldman, Lumbreras, entre otros, y, más recientemente los resultados de las investigaciones en Caral y otros asentamientos del valle de Supe, y de Vega Centeno en el valle de Fortaleza, han hecho posible contar con los datos para precisar el espacio y la época de formación de la civilización en el Perú.

**Shady Solis, Ruth (Directora del Proyecto Especial Arqueológico Caral-Supe/INC)**

[175] *Situación del Ejercicio Profesional de la Arqueología en el Perú*

Se presenta una evaluación del ejercicio profesional de los arqueólogos en el Perú en los siguientes aspectos: 1) De la política cultural nacional; 2) De las instituciones, leyes y normas; 3) Del Colegio de Arqueólogos; y 4) De la relación con los "arqueólogos peruanistas" y otros profesionales extranjeros.

**Shanley, Michael (SUNY-Albany) and Rafferty, Sean M. (University at Albany, SUNY)**[172] *Chert Analysis Using X-Ray Spectroscopy: A Preliminary Study*

A component of SUNY Albany's ongoing archaeometric research includes an XRF spectroscopy analysis of chert from the Schoharie Valley in New York. Material is being systematically compared with raw unmodified chert recovered from various local and regional sources. Through the aid of 100% nondestructive techniques, we are attempting to decipher the sometimes cryptic relationship between source and site. Our goal is to gain a better understanding of regional materials and lithic procurement strategies within the Mohawk River Drainage network. Preliminary results have shown it is possible to distinguish between visually homogeneous chert sources.

**Sharratt, Nicola (U.I.C./Field Museum), Williams, Patrick Ryan (Field Museum), Nash, Donna (U.I.C.), Speakman, Robert J. (Missouri University) and Glascock, Michael D. (Missouri University)**[219] *Status and Specialized Production on Wari's Southern Frontier*

Drawing on results obtained through INAA and ICPMS, this paper explores the role that the differential use of natural resources can play in the construction and maintenance of a status hierarchy. The Middle Horizon Wari site of Cerro Baul, in the Moquegua Valley, southern Peru is the focus of discussion. The compositional content of ceramics, including both elaborately decorated vessels and domestic ware, excavated from elite and non-elite contexts is compared against clay sampled from locations throughout the valley, to determine whether raw material, as well as form and design, may be taken as indicators of prestige.

**Shaw, Justine M. (College of the Redwoods)**[177] *Roads to Ruins: Explaining Terminal Classic Sacbe Construction in the CRAS Study Area*

During the Terminal Classic, two of the largest sites within the GRAS study area constructed major sacbe systems. Although both Ichmul and Yo'okop had been occupied by the Middle Formative, neither built causeways until this late date. This research will explore possible factors that may have prompted the construction of these road networks, including changes in regional political affiliations following the collapse of southern powers, the emulation of northern capitals including Coba and Chichen Itza, an apparent increase in the region's population, evidence for drought, and a need to maintain control as the settlement pattern became more dispersed.

**Shaw, Leslie (Bowdoin College) and King, Eleanor (Howard University)**[120] *Economic Trends at the Maya Center of Maax Na, Belize*

The Maya site of Maax Na, located on the eastern Peten Plateau in Belize, was strategically positioned for both agricultural production and regional trade. While the extent of our excavations at the site remain modest, there are indications that Maax Na expanded its economic power with a rapid growth in agricultural sectors that probably began in the Early Classic. Monumental architecture was extensively remodeled during the 7th century, including a large plaza that may have served as a market place. Recent excavation data from Maax Na will be discussed with reference to economic models proposed elsewhere for the Three Rivers Region.

**Shaw, Margaret (University of Arizona), Vonarx, A.J. (University of Arizona) and Howell, R. Emerson (University of Arizona)**[93] *Wood Use Behavior, Resource Recycling, and Construction Technologies at Chevelon Pueblo*

Well-preserved roofs at Chevelon reveal unique construction strategies and wood recycling behavior through time. Villagers relied on driftwood for roof construction. The challenges of working with a limited supply of variable quality materials are reflected in construction style. The presence of burned beams in otherwise unburned roofs suggests that conifer primaries were recycled numerous times. Natural planks of ponderosa pine and cottonwood served as secondary and tertiary materials in many rooms. Holding room size constant, beam diameters decrease and the number of beams used per roof increases over time. This trend implies exhaustion of resources as the pueblo grew.

**Shea, John (Stony Brook University)**[59] *Middle Stone Age Lithic Assemblages Associated with Early Homo sapiens Fossils in the Omo Kibish Formation, Southwestern Ethiopia*

This paper describes the lithic assemblages of Middle Stone Age sites from the Omo Kibish Formation, Lower Omo Valley, southwestern Ethiopia. Human fossils from the Kibish Formation

are among the oldest dated examples of *Homo sapiens*. Discovered in 1967, little was known about these fossils' archaeological associations until the resumption of research in 1999-2003. The MSA assemblages associated with the Omo Kibish fossils exhibit little evidence for the "behavioral modernity" claimed for some later MSA contexts. This suggests the capacity for this "modern" behavior evolved at some later point in *Homo sapiens*' evolution.

**Shea, John [40]** *see Sisk, Matthew*

**Sheehan, Michael (Knight & Leavitt Associates) and Rovner, Irwin (Binary Analytical)**

[222] *Retro-dicting Spherical Lead Bullet Diameter at Historic Sites*

A diverse array of 18th century North American military installations experienced sequential occupation by British, French and American Forces. Differentiating these occupations is critical to site interpretation. One frequently overlooked source of information pertaining to national/cultural affiliation is musket balls. A particularly vexing problem is the identification of deformed musket balls. The research reported here represents an independent test of the oft used Sivilich Formula and an attempt to develop other methods for determining pre-firing bullet diameter, including one based on computer-assisted optical stereology. In each case, accuracy rates in excess of 90% were achieved.

**Sheets, Payson (University of Colorado, Boulder)**

[230] *Successes and Frustrations in Geophysical Explorations for that Pesky Western Boundary of the Ceren Site, El Salvador*

Urban expansion from the traditional town of Joya de Ceren is threatening part of the ancient Ceren site. Geophysical surveys have been conducted to try to find the western site boundary, so the government can protect it. Instrumentation includes ground-penetrating radar, resistivity, and electromagnetic induction. Core drilling was used to explore the nature of anomalies, to examine the nature of tephra stratigraphy, and to explore other areas for research potential. We recommend a land title change. We also recommend no change in present land-use, subsistence agriculture, because of population pressure on scarce resources.

**Sheffield, Mason (New South Associates, Inc.)**

[249] *Comparison of Animal Remains from Ten Mile Creek and Three Forks Marsh*

The presentation compares and contrasts prehistoric faunal collections from sites in the following two regions along the south central Florida coastal interior: Ten-Mile Creek (St. Lucie County) and Three Forks Marsh (Brevard County). Analysis of these collections revealed certain trends in subsistence practices, dating from the Late Archaic to East Okeechobee II/Malabar II periods. Fish remains dominate the faunal collections that also contain reptiles and mammals.

**Shelach, Gideon [7]** *see Peterson, Christian*

**Shelley, Phillip [57]** *see Hull, Sharon*

**Shelnut, Nicole [152]** *see Adolfo, Gil*

**Shepardson, Britton (University of Hawaii)**

[204] *Megaliths and Megabytes - Simulating Rapa Nui (Easter Island) Prehistory*

Rapa Nui (Easter Island) presents great potential for computer simulation. Its relative isolation and limited land mass (170 km<sup>2</sup>) offer a laboratory-like scenario for the study of cultural evolution in relation to the natural environment. Although our understanding of the paleoenvironment of Rapa Nui is limited, we can still begin to develop a simulation for prehistory that can gradually be altered and updated as archaeological research progresses. This work explores the potential environmental and behavioral themes that may be addressed with agent-based modeling and the limitations of current data for the island.

**Sheptak, Russell (University of California, Berkeley)**

[122] *Accounts of Indigenous and Spanish Interaction in the First Decades of Honduran Colonization*

The Spanish left accounts of their perceptions of indigenous actors and their actions in Honduras' Ulua valley between the first attempts at colonization in the 1520s and effective control in the late 1530s. Rather than treat these accounts as reflections of the actions and motivations of native actors, I approach them from the perspective of contemporary social theory. Spanish accounts inform us most directly about Spanish expectations of proper indigenous behavior. They reveal taken for granted assumptions, especially those that were violated. Those

actions that were unexpected provide evidence of indigenous agents and their assumptions about proper behavior as well.

**Sherman, Jason (University of Michigan) and Villamil, Laura (Albion College)**

[182] *Interpreting Evidence of Ceramic Production: An Example from Yaasuchi, Oaxaca, Mexico*

Archaeological evidence of ceramic production is often difficult to recognize and interpret. The identification of production loci may be complicated by a number of factors, including the scale and intensity of ancient production; the nature of production facilities; limitations inherent in different classes of archaeological data; and issues of preservation. Surface survey and excavation data from Yaasuchi--a Middle Formative to Early Postclassic (500 BC-AD 1000) site in the Valley of Oaxaca, Mexico--are presented in order to illustrate some of the issues involved in recognizing and understanding evidence of ceramic production.

**Sherwood, Sarah [109]** see *Gremillion, Kristen J.*

**Shimada, Izumi (Southern Illinois University)**

[116] *The Ceremonial Center and Urbanism on the Peruvian Coast: A Creative Dynamism*

Based on data from the site of Pampa Grande, Sicán, and Pachacamac, I argue that (1) on coastal Peru, the most durable form of social integration was the ceremonial center, (2) under certain natural and/or sociopolitical conditions, it served as the organizational, ideological, and physical basis for what we call cities, and (3) that the resultant cities were not stable and long lasting. I discuss the applicability of Paul Wheatley's concept of the ceremonial city and interaction model of urbanism.

**Shimada, Izumi [4]** see *Wagner, Ursel*

**Shiratori, Yuko (PROARCO) and Nakamura, Seiichi (PROARCO)**

[210] *Preliminary Results of Ceramic Analysis from Group 9L-22 and 9L-23 in Copan, Honduras*

Archaeological investigations in Groups 9L-22 and 9L-23 by Proyecto Arqueológico Copan (PROARCO) from 2003 to 2005 have uncovered elite residential structures and burials of the Classic Period. Ceramic analysis from these two groups has determined that they were first occupied during the Early Classic Period. The stylistic features of the ceramics, especially from Group 9L-22 represent an intra-site similarity to offering vessels of the "Sub-Jaguar" royal tomb at the Acropolis, as well as the broad external network in which the elite residents in this group participated during the 6th century.

**Shock, Myrtle (UC Santa Barbara) and Sydoriak Allen, Kathleen (University of Pittsburgh)**

[35] *Lithic Analysis and the Intensity of Iroquois Site Occupation*

The periodic movement of Iroquois village sites has led us to expect that sites of several acres or more in size found in close proximity were consecutive villages. The site of Parker Farm in central New York State may be an exception to the pattern that large sites functioned as villages. Parker Farm and the adjacent Cayuga Iroquois village, Carman, have significantly different archaeological deposits in terms of artifact density and proportions of lithics, ceramics and faunal remains. This paper considers how lithic tools (formal and informal) and debitage can be used to analyze activity differences between these two sites.

**Short, Laura (Indiana University of Pennsylvania) and Allard, Francis (Indiana University of Pennsylvania)**

[71] *From Site to walking Survey: What a Full Coverage Survey of Khanuy Valley is Revealing about Bronze Age Mongolia*

The full coverage survey carried out over the past four field seasons by the "Khanuy Valley Collaborative Project on Early Nomadic Pastoralism in Mongolia" has identified over 500 stone built ritual and funerary sites within a 65 square kilometer area of Khanuy valley. Located on the valley floor and hill slopes, the large number of Bronze Age (ca. 1500 - 500 BC) sites display spatial, structural, temporal and functional patterning that informs a range of topics relevant to the study of Bronze Age Mongolia, including ritual practice, environmental constraints, socio-political organization, as well as demography.

**Shott, Michael (University of Northern Iowa), Clark, Geoffrey (Arizona State University) and Lindly, John (SWCA Env. Consultants)**

[197] *Core Reduction and Refitting: Lessons from WHS623x, An Upper Paleolithic Site in Jordan*

The production of usable flakes to solve problems of adaptation for prehistoric hunter-gatherers

is often presented by lithic technologists as a rigid set of strategies to be followed in a step-by-step fashion. In truth, these are most certainly a fluid set of behaviors conditioned by a familiarity with techniques and materials and tempered by environmental and situational requirements. The analysis of a series of refitted cores from a Paleolithic site in central Jordan demonstrates that in reality, core reduction does not necessarily follow a set of rules but can be both adaptable and haphazard.

**Shott, Michael (University of Northern Iowa) [133] *Discussant***

**Shoup, Daniel (University of Michigan)**

[146] *Sustainability and the Valuation of Archaeological Goods*

Managing resources for sustainable development requires balancing nature, economics, and society. Archaeology is relevant to many communities, but each uses the resource for different purposes such as scholarship, tourism, identity, and entertainment. Without a theory of archaeological goods, the relative significance of each use is hard to measure. I suggest that the main archaeological goods are information, experience, and commodities. I outline the ways these goods are consumed and by whom, and explore inherent tensions around preservation, commodification, ownership, and development. I conclude by suggesting ways of measuring the relative importance of goods and their consumers for sustainable site management.

**Siegel, Peter E. (John Milner Associates)**

[1] *Competitive Politics and Imperial Expansion in the Caribbean*

Archipelagos are ideal settings for studying historical processes of interactions between groups of people. Artifact styles and raw materials, settlement layouts, subsistence practices, etc. may be compared and contrasted for insights into shared ideologies, between-group dynamics, interaction spheres, and exchange networks. In this paper, competitive interactions between late prehistoric/Contact-period chiefly polities on Puerto Rico are investigated. Territorial expansion into the smaller islands of the Lesser Antilles and implications for the ensuing social formations in those islands are explored.

**Siegel, Peter E. (John Milner Associates)**

[52] *Pre-Columbian Pottery in the West Indies: Compositional Change in Context*

Raw material selection in the production of pottery is examined in the context of developing settlement hierarchies and evolving institutional inequality in pre-Columbian Puerto Rico. Distinctive sherds ranging in age from 200 BC to AD 1200 were selected from various contexts in the Maisabel site. This time frame spans occupations of the earliest single-village egalitarian communities through the development of multi-village territorial polities. Sherds were also selected from Site HU-7, occupied during the transition between two late prehistoric complexes, ca. AD 1000. All sherds were subjected to instrumental neutron activation analysis to characterize compositional variability regionally and through time.

**Siegel, Peter E. [176] *see Foss, John E.***

**Sievert, April (Indiana University), Pope, Melody (Northwestern State U), Sievert, Sheree (Paprika) and Mankowski, George**

[5] *Where Capitalists Meet the CCC: Spring Mill State Park, Mitchell, Indiana*

Early 19th century expansion into the Ohio valley attracted investors from eastern states who sought to purchase property and develop industries on the frontier. Spring Mill State Park in Mitchell, Indiana, contains the site of a mill town established in 1814 and abandoned in the 1890s. Recent archaeological monitoring at the site uncovered artifacts and intact archaeological deposits that illustrate the wealth of early residents at the "pioneer" town. This is significant in light of extensive reconstruction directed by state park visionaries and performed by the Civilian Conservation Corps in the 1930s in an attempt to recapture Indiana's pioneer past.

**Sievert, April [226] *see Pope, Melody***

**Sievert, Sheree [5] *see Sievert, April***

**Silliman, Stephen (University of Massachusetts Boston)**

[186] *Materializing Social Identity, Past and Present*

A central problem with archaeological research on identity is that social identity is not in material culture and it never was. Instead, material culture is in social identity. Without acknowledging this

distinction, we tend to reify and impose social categories rather than trace out lived experiences and to prioritize inappropriate moments in objects' social biographies. I offer thoughts on how to negotiate this quandary using 18th- and 19th-century Native American archaeological sites in northern California and southern New England. Colonial contexts offer ideal venues for reconsidering identity given the complex cultural intersections and the enduring legacies for contemporary indigenous communities.

[11] *Discussant*

**Silva, Rosicler (Universidade Catolica de Goias) and Rubin, Julio (Universidade Catolica de Goias)**

[204] *Archaeology and Soil Horizons: Theoretical Considerations and the Excavation of the Archaeological Site Emival, Goiás, Brazil*

This paper stresses the relationship between archaeology and soil horizons through theoretical considerations and field observations, which are well represented at the site Emival, where anthropological action is intensive. In this site, the building of agricultural terraces are structured in a slope in two intervals: one depositional and another, with erosive processes and soil losses, altering the topographical gradient and interfering in the thickness of the occupation level. Exploratory pits carried out in the depositional zone of the terrace allowed the identification of ceramic fragments at 0.70 meters, as a consequence of accumulation of soil and transported cultural vestiges.

**Silver, Annette**

[166] *The St. Joseph Site Trinidad: The Euro-American Assemblage*

The 1953 Rouse-Goggin excavations at St. Joseph, Trinidad yielded a mix of Amerindian and European materials. The Euro-American assemblage reflects the European presence in the town of St. Joseph for over two centuries, the late-sixteenth through the nineteenth. John Goggin (1968) has described fully the Spanish ceramics. This report presents a detailed description of the English artifacts recovered from the mixed midden site and discusses the context of the assemblage in regards to the English occupation of Trinidad.

**Silverman, Shari**

[36] *Watercraft Distribution Throughout the Plateau Culture Area*

Numerous types of watercraft traversed the waters of the Plateau Culture Area. This study examines their characteristics and distribution, then relates them to cultural and geographic traits. Environmental factors, particularly water behavior and resource availability, impacted utilitarian characteristics, such as the ability to stay afloat and navigate different types of water, as well as cost factors. Local materials cost less than exotic ones. Cultural influences, however, affected watercraft decor. The Plateau's cultural and environmental features resulted in a diverse array of watercraft styles.

**Silverstein, Jay (JPAC Central Identification Lab), Martínez, Horacio (Universidad de San Carlos), Webster, David (Penn State), Murtha, Timothy (Penn State) and Straight, Kirk (Penn State)**

[179] *The Great Earthwork of Tikal: And the Walls Came Down*

Since their discovery, the Great Earthworks of Tikal have served as the proverbial Gallant Tailor whose belt boasted of seven in one blow. Puleston interpreted the feature as a city wall protecting the polity on the north and south, and the literature since then has embraced this. The Estudio de las Fortalezas de Tikal began under the same paradigm, but our current data indicate that the earthworks, while indeed great, include various anomalies that appear to contradict the character of a massive defensive feature. Some evidence suggests that territorial demarcation, quarrying, hydraulics, and communication may have trumped the defensive function.

**Simsek, Jan [213] see Blankenship, Sarah**

**Simmons, Alan (University of Nevada, Las Vegas)**

[28] *Sacred Cows or Sirlain?*

Cattle occur in many contexts in the Near Eastern Neolithic and there seems little doubt that they played both ceremonial and economic roles on the mainland. Recent research in Cyprus has documented small amounts of cattle in early Neolithic contexts, a surprising development since cattle had not previously been known until the Bronze Age. Despite their early presence, however, they disappear by the later Neolithic Khirakiita Culture. This paper discusses some of the possible roles that cattle may have played in the initial colonization of Cyprus, examining both ritual and economic scenarios.

**Simmons, Scott (University of North Carolina Wilmington)**

[189] *Maya Metallurgy and the Late Postclassic-Spanish Colonial Period Political Economy of Lamanai, Belize*

The Maya Archaeometallurgy Project (MAP) is in its fifth year at Lamanai, Belize. The research is focused on understanding the roles that copper metallurgy played in the political economy of Lamanai in Postclassic and Spanish Colonial times. At present, more copper objects have been recovered during controlled archaeological excavations at Lamanai than at any other Maya site. The results of recent research suggest that Lamanai's Spanish colonial period administrator, the cacique, may have controlled some aspects of the production and distribution of copper objects at Lamanai. The results of chemical compositional analyses, and other MAP research, will be presented here.

**Simon, Arleyn (Arizona State), Swanson, Steve (Arizona State) and Crider, Destiny (Arizona State)**

[160] *Evidence for Prehistoric Agave Fermentation in the Greater Southwest*

Agave was a ritually significant plant and important source of food throughout the history of Native societies of the Southwest. Archaeological research has recognized the harvesting and roasting of agave, but has given little attention to fermentation. We assess ethnographic accounts, archaeological features and artifacts, and experimental replication to re-evaluate the use of agave fermentation at Salado Platform Mounds of central Arizona. We conclude that in addition to consuming roasted agave, the preparation of agave wine at prehistoric ceremonial centers likely played an important role in the communal feasting performed at platform mound communities during the Hohokam Classic period.

**Simpson, Duane (AMEC Earth & Environmental) and Mink, Phil**

[251] *Geophysical Cemetery Investigations within the Ohio Valley Region: Results and Implications*

Recent geophysical investigations into marked and unmarked cemeteries throughout Kentucky, the greater Ohio Valley and beyond have provided a wealth of information. This presentation will focus on a few of these investigations, discussing successes and failures using differing instrumentation and techniques. In addition, a few cases will be discussed that illustrate information that can be obtainable from the geophysics beyond just horizontal and vertical position of graves.

**Sims, Kenneth Y. (University of Michigan)**

[51] *Comparing Long-term Late Intermediate Period Political Trends in Southern Peru*

This paper will evaluate Late Intermediate Period (LIP) developments from the Moquegua Valley, Peru while comparing it to neighboring valleys along the Peruvian south coast. This comparison will document LIP political trajectories across different regions that were earlier on variously affected by the Tiwanaku and Wari states. One problem addressed here is the (mis)conception of Horizons and Intermediate Periods as synonyms for homogenous and balkanized political periods, respectively. Data for LIP will be compared between coastal valleys to understand how various forms of Wari and Tiwanaku influence are contingent to the development of different types of regional polities.

**Sinopoli, Carla (University of Michigan) [192] Discussant; [233] Discussant****Sisk, Matthew (Stony Brook University) and Shea, John (Stony Brook University)**

[40] *Spatial Structure of Middle Stone Age Sites from the Lower Omo Valley Kibish Formation (Ethiopia)*

The Middle-Late Pleistocene Kibish Formation of the Lower Omo Valley (Ethiopia) contains some of the oldest-dated Homo sapiens fossils. Archaeological excavations in the Omo Kibish between 2002-2003 recovered numerous stone tools from extensive horizontal exposures of two sites, KHS (195 ±5 kyr) and BNS (104 ±7 kyr). Because of time and logistic constraints the precision of excavation was limited square meter resolution. Despite this, GIS-based analysis of artifact distributions, micro-debitage densities, and refitting artifact constellations sheds light on site formation processes. Both localities reveal weak patterns of differentiation and BNS seems to have a preferred refit orientation.

**Skaggs, Sheldon [22] see Ippolito, John**



Skinner, A.R. [162] *see Blackwell, Bonnie*; [63] *see Blickstein, J.I.B.*

Skinner, Craig [108] *see Ferguson, Jeffrey*

Skowronek, Russell K. (Santa Clara University) [227] *Discussant*

**Skowronek, Russell K. (Santa Clara University) and Ewen, Charles R. (East Carolina University)**

[227] *Cold Case: Investigating Archaeological "Crime Scenes"*

Crimes not solved within the first 48 hours of their commission often remain unsolved. Thus looking for illicit activities in the archaeological record is truly working a "cold case." The historical record in the Caribbean is full of depositions concerning pirates, smugglers, and other criminal types. But where is the physical evidence? How did these interlopers alter the ways of life for law-abiding residents? Were the reports mere propaganda or is there genuine evidence of criminal behavior? We will examine the archaeological evidence for illicit trading and raiding activities and how they shaped the Spanish colonial world.

**Sládek, Vladimír (University of West Bohemia, Plzeň, Czech Republic), Galeta, Patrik (University of West Bohemia, Plzeň, Czech Republic), Sosna, Daniel (University of West Bohemia, Plzeň, Czech Republic), Čechura, Martin (Museum of West Bohemia, Plzeň) and Friedl, Lukáš (University of West Bohemia, Plzeň, Czech Republic)**

[141] *Pathology and Taphonomy of Human Burials: Simple Grave versus Grave with Delineated Empty Space*

Study of postdepositional changes of human bodies sheds light on mortuary treatment of the dead. We examine the skeleton VSE501 from the medieval cemetery of Všeruby (Czech Republic) to evaluate the effect of pathology on taphonomic processes. VSE501 shows a highly variable degree of skeletal element dislocation. The combination of markers typical for simple graves covered with soil and those with delineated empty space was puzzling. Since pathological alterations of the vertebral column were identified, careful scrutiny of taphonomic data allowed us build a model of the effects of pathology on burial evidence.

**Sládek, Vladimír [223] *see Sosna, Daniel***

**Slessman, Scott [250] *see Phillips, Scott***

**Sload, Rebecca**

[236] *Location, Location, Location: The Murals in a Doorway near the White Patio, Atetelco, Teotihuacan*

The similarity of a figure in the Codex Vaticanus B to one of the two figures on either side of a doorjamb near the White Patio at Atetelco provides clues regarding the meaning of the Teotihuacan figures. A comparison of these figures with one in the Tepantitla Ball Game talud suggests a theme common to all three representations and supplements previous analysis of the Teotihuacan murals. Dovetailing with this theme, it is argued, is that the location of the Atetelco figures is important; the transitional space of a doorway is deliberate and conveys meaning.

**Slovak, Nicole (Stanford University)**

[68] *Examining Huari Influence on Peru's Central Coast: Isotopic and Cultural Analyses of Middle Horizon Burials at Ancón*

This paper discusses ongoing strontium isotopic analyses of human skeletal remains and cultural analysis of funerary objects from the coastal site of Ancón, Peru. It will attempt to determine whether similarities in material culture between Ancón and the Huari polity may be due to the migration of peoples from Huari or to other influences short of migration. The results of this study will provide an empirical foundation for understanding the economic and political relationship between Huari and Ancón during the Middle Horizon, and will improve our knowledge of pre-Hispanic burial practices along the central coast of Peru.

**Small, David B. (Lehigh University)**

[245] *Conceptualizing Approaches to Rural Surface Sites*

A major difficulty in understanding the importance of rural sites from surface survey is that they are underconceptualized, and therefore either not excavated, or simply folded into a larger concept of attachment to an urban center. This paper will offer different concepts for rural sites and new ways to approach their importance.

**Smith, Adam T. (University of Chicago )** [180] *Discussant*; [71] *see Lindsay, Ian*

**Smith, Alexia (University of Connecticut)**

[232] *Bronze and Iron Age Agriculture in the Near East*

This paper examines agricultural production throughout the Near East during the Bronze and Iron Ages and considers change in relation to environmental and climatic variation. The analysis incorporates new palaeoethnobotanical data from Tell Qarqur, Syria, with published data from sites across the region. The large body of data is stored in the Near Eastern Agricultural Database and was analyzed using CANOCO. Multi-variate statistics highlight two distinct zones of production that, in part, relate to environmental conditions.

**Smith, Beverley (University of Michigan-Flint) and Egan-Bruhy, Kathryn (CCRG, Inc.)**

[178] *Illusions of Change: Middle to Late Woodland Subsistence-Settlement Patterns in the Saginaw Valley of Michigan*

Models of subsistence-settlement have been generated to explain highly diverse faunal and floral assemblages that do not conform to patterns of change between the Middle and Late Woodland elsewhere in the Midwest and Great Lakes. Models assume that the Late Woodland will display radical changes from earlier patterns. Recent analyses of floral and faunal assemblages from several sites indicate that Middle and Late Woodland resource exploitation patterns do not reflect radically different strategies. This study tests the assumption that change in material culture is tied to change in subsistence-settlement behavior in an environment with a diverse natural resource base.

**Smith, Bruce D. (Smithsonian Institution)**

[206] *Recognizing the Transition to Agricultural Economies in the Archaeological Record*

Considerable progress has been made in recent years in documenting the initial domestication of plants and animals world-wide, which in turn has allowed the more accurate placement of the early chapters in the transition from hunting-and-gathering to food production economies in temporal and cultural context. Recognizing the subsequent initial emergence of agricultural economies in the archaeological record of different work regions, however, has proven much more difficult. Difficulties in defining what agriculture is, and how it can be recognized in the archaeological record, are discussed, and several case study examples are presented.

[109] *see Tuross, Noreen*

**Smith, C. Wayne (Nautical Archaeology Program, Texas A&M University)**

[62] *3-Dimensional Imaging in Archaeological Conservation*

Through research at the Wilder 3-Dimensional Imaging Lab at Texas A&M University, research has focused on developing scanning, MRI Imaging and stereolithographic(rapid prototype)and haptic arm technologies to assist conservators in the laboratory. This paper will discuss how these technologies have been combined for use in archaeological conservation. Several case studies will be used to illustrate technological shortfalls and advancements.

[164] *see McKillop, Heather*

**Smith, Claire (Flinders University)** [91] *Discussant*; [94] *Discussant*

**Smith, Craig S. (TRC Mariah Associates) and Byers, David (TRC Mariah Associates)**

[105] *Late Holocene Variability in Artiodactyl Use in the Wyoming Basin, Wyoming*

Wyoming Basin archaeofaunal data suggest that the more mesic late Holocene provided higher encounter rates with artiodactyls when compared to the warmer/drier early and middle Holocene periods. Although late Holocene components on average indicate greater artiodactyl abundances, the remains from individual assemblages range from exclusively small mammals to only artiodactyls. This paper examines the hypotheses that the late Holocene variability reflects environmental heterogeneity, with artiodactyls more common in patches offering more favorable habitats. We find that both fine grained spatial and temporal variables condition the pattern.

**Smith, David** [141] *see Kemp, Brian*

**Smith, David Glenn** [141] *see Monroe, Cara*

**Smith, Donald (Panamerican Consultants, Inc.)**[35] *Early Late Woodland Social Context and Ceramic Variability in the Northeast*

This paper examines attributes of ceramic vessels from the early Late Woodland Carpenter Brook site in Central New York State from the perspective that the ritual events in which people intended those pots to be used influenced potters' decisions regarding the vessels' decorative qualities. In comparison with the decoration on vessels from villages, that on the pots from Carpenter Brook is disproportionately larger, but of similar complexity - a pattern related to the highly visible symbolic roles vessels played during ritual contexts. This analysis explores an axis of variability not considered in typological approaches.

Smith, Gary [62] *see Hill, Glenn***Smith, George S. (Southeast Archeological Center)**[124] *Preserving the World's Heritage Resources Workshop Results: Heritage Resource Management in Global Perspective*

Now more than ever, there is a need to support communication and interaction among an international and interdisciplinary community of archaeologists, social scientists, educators, policy makers, and government officials who teach, do research, and work in institutions and agencies that deal with heritage resource studies, management, and preservation. It is necessary to develop and strengthen networks for sharing knowledge and best practices, discussing emerging issues and concerns, and identifying strategies for solving problems. This paper discusses the results of the Heritage Resource Management work group from the recent Preserving the World's Heritage Resources Workshop.

[214] *Discussant***Smith, Holly (University of Oklahoma)**[104] *(Not Quite) Hopewell on the Plains: The Implications of Cuesta Phase Pottery*

The present research uses ceramic assemblages to answer questions about mobility strategies of past households and their social interactions at both the local and regional level. The shift from frequent residential mobility to increasing sedentism provides an opportunity to examine the social and economic consequences of changing mobility strategies. The Middle Woodland Cuesta phase provides a case study for exploring this shift. I propose that groups who are becoming more sedentary may place increased emphasis on mobility as a social strategy for risk reduction. Ceramics provide measures for residential mobility and inter-group interaction.

Smith, Ian [6] *see Nagaoka, Lisa***Smith, J. Gregory (San Antonio College) and Ringle, William (Davidson College)**[177] *Morley in the Middle: Examining the Borderlands between Chichen Itza and Ek Balam, Yucatan, Mexico*

Our study of the settlements located between Chichen Itza and Ek Balam has allowed us to trace the shifting borderland configurations between these great Maya capitals. Instead of assuming these communities were wholly absorbed by the Chichen or Ek Balam polities, we emphasize how local self-interest shaped responses to the political and economic possibilities of the larger world. Our evidence from Ichmul de Morley, perhaps the foremost border site, and other sites in the Chichen-Ek Balam corridor suggests a complex network of communities whose regional affiliations shifted through time.

Smith, Jeannette [194] *see Taché, Karine***Smith, Jennifer (Washington University in St. Louis), Moore, Andrew (Rochester Institute of Technology) and Giegengack, Robert (University of Pennsylvania)**[71] *Landscape and Climate Evolution During the Holocene in Dalmatia (Croatia): Implications for Early Farming*

The karst valleys of central Croatia appear to have been prime locations for early farming. The closed depressions would focus water resources even during dry times, though the steep slopes bounding these depressions are vulnerable to erosion. The meter-thick accumulations of sterile sediment separating Neolithic occupation layers at the Danilo Bitinj site, as well as the frequent cobble-sized sediments in the flat, interior portions of the valley suggest that substantial slope instability occurred during the Neolithic, perhaps because of forest clearance

on hillslopes. The riverine carbonates forming along the nearby Krka River will provide a paleoclimate sequence for the region.

**Smith, Jennifer [71]** *see Moore, Andrew*; **[204]** *see Fadem, Cynthia*

**Smith, Karen Y. (Monticello) and Neiman, Fraser D. (Monticello)**

**[245]** *Interpreting the Occupational Histories of Two Late-Eighteenth-Century Slave Quarters at Monticello*

Archaeology at two eighteenth-century domestic sites of enslaved field hands and an overseer reveals a surprisingly rich archaeological record, though it is one contained primarily within the plowzone. Previous work emphasized the methods used to elicit inter- and intra-site chronologies of these adjacent sites from plowzone data. Here we focus on the interpretations—duration and intensity of site occupation and variation in material culture—that those methods allow us to make while situating the story within the broader context of the ever-changing Monticello Plantation.

**Smith, Kevin P. (Brown University)**

**[252]** *Outlaw Archaeology: Marginality, Resistance, and Exile: Tales from the Viking Age and Beyond*

The archaeological records of individuals and groups whose actions placed them outside past societies' legal boundaries -outlaws, bandits, pirates, and rebels - are relatively unknown; their interpretation remains theoretically under-developed. Using examples from Viking Age Iceland and elsewhere, this paper considers what it was like to live outside the law; whether the sites created by legal outcasts inverted, transformed, or reflected the symbolic codes of the societies around them; how we might identify such sites in the absence of documentary records; and whether it would be possible or worthwhile to develop an "outlaw archaeology" examining law, marginality, and resistance.

**Smith, Michael E. (Arizona State University)**

**[49]** *Planning and Spatial Organization of Aztec City-State Capitals*

The founding and layout of Aztec city-state capitals were influenced by two historical processes: the arrival of migrants from the north and the collapse of Tula. I apply a new model of preindustrial urban planning that focuses on two planning principles: (1) spatial coordination among buildings, and (2) standardization of urban buildings and layouts. I discuss the roles of politics, ideology, and cosmology in the creation of Aztec urban public built environments. Many city-state capitals were designed as imitations of Tula, but the builders of Tenochtitlan deliberately employed different principles to arrive at a city layout unique in Mesoamerica.

**[233]** *Discussant*

**Smith, Ross [41]** *see Hoffman, Brian*

**Smith, Scott [54]** *see Ohnstad, Arik*

**Smith, Shelley [46]** *see Wisely, Sally*

**Smith, Stuart (UC Santa Barbara)**

**[233]** *Egyptian Dominance, Nubian Revival: Cultural Dynamics during and after Egypt's New Kingdom Empire*

Studies of empire often neglect the central role that everyday interactions of individual agents, colonial and native, play in determining imperial outcomes. Archaeological and textual sources at the macro-scale have been used to infer the disappearance of Nubian culture under Egyptian colonial rule (1550-1070 BC), yet distinctively Nubian cultural practices with roots before the conquest re-emerge after the empire's collapse. This paper employs a nuanced approach that avoids simple explanations based upon large scale patterning in favor of a focus on subtle localized shifts in cultural interactions in order to better understand this complex transition.

**Smyth, Michael (Rollins College)**

**[235]** *Of Capitals and Kings: Domestic Organization and Ethnic Dynamics at Chac-Sayil, Yucatan*

Comprehensive research over the past two decades show two successive capitals in the heart of the Puuc hills region that exhibit complex and differing patterns of ethnicity. Mortuary remains, residential architecture, and activity patterns from intensive survey and excavation at both Chac

and Sayil indicate that their emergence was related, in part, to foreign influence and interactions with ethnic groups both Maya and non-Maya. This paper will discuss the dynamic changes in domestic organization between Middle Classic Chac and Terminal Classic Sayil and the implications for better understanding the role of the Puuc region in Mesoamerican prehistory.

**Snarskis, Michael [34]** *see Bruhns, Karen Olsen*

**Snead, James (George Mason University) [46]** *Discussant*; [110] *see Walsh, Michael R.*

**Snow, Dean (Penn State University) [184]** *Discussant*

**Snyder, David [43]** *see Manson, Joni*

**Snyder, Lynn M. (Smithsonian Institution) and Scarry, C. Margaret (Research Labs of Anthropology, University of North Carolina-Chapel Hill)**

[178] *Civic Production and Consumption at Azoria, East Crete during the First Millennium BCE*  
Archaeological investigations at Azoria, an Archaic period (ca. 700-600 BCE) urban center in East Crete, document centralized food storage and preparation associated with communal civic dining. In dumps within the service and dining areas associated with civic buildings, evidence of high quality meat portions and a variety of marine resources dominate the faunal assemblages. Remains of clean grains and pulses, orchard and vine crops were recovered from the floors of communal kitchens and dining areas; evidence of orchard and vine crops was also found in associated storage rooms. Primary butchering and field crop processing debris is virtually absent from these assemblages.

**Sofaer, Anna [62]** *see Nicoli, Joe*

**Soffer, Olga (University of Illinois)**

[83] *Paleolithic Chefs and Their Disparate Cuisines*

This paper examines how prey was transformed into dinner some 20,000 years ago. Using data on the inventories and features recovered from sites across Europe, I demonstrate that not only were there regional differences in how foods were stored but also in how they were prepared for consumption. Some Upper Paleolithic people transformed surplus meat into pemmican while others froze reserves in storage pits. The existence of different regional cuisines, which saw some chefs sautéing or stewing while others roasted, carries implications for the diversity in associated technologies, as well as for both social and demographic histories.

**Solometo, Julie (James Madison University) and Bredthauer, Alison (James Madison University)**

[108] *The Chevelon Archaeological Research Project: Past Results, Recent Discoveries*

This poster summarizes the results of the Chevelon Archaeological Research Project (CARP) in its first (1970-1974) and recent (1997-present) incarnations. The early work in Chevelon, Arizona is notable for its contributions to sampling and survey methodology and the study of stylistic variation, social interaction, and social boundaries, while challenging traditional approaches to ceramic typology and chronology. Recent restudy of collections and new fieldwork in Chevelon and nearby areas validates CARP's controversial ceramic dating scheme and expands upon the culture historical implications of the earlier work, providing both additional insight into pre-AD 1200 settlement and growing evidence for persistent violence.

**Somers, Bretton (Louisiana State University) and McKillop, Heather (Louisiana State University)**

[139] *Revealing the Hidden Landscapes of the Ancient Maya: GIS Analysis of Transect Excavations at Arvin's Landing, Southern Belize*

Among the many manifestations of ancient Maya cultural activity, much remains hidden in the modern landscape due to their modest expression and environmental change. This poster illuminates how GIS analysis of transect excavations at Arvin's Landing, a forested site in southern Belize, has aided in revealing the presence of ancient Maya settlement activity.

**Somers, Bretton [164]** *see McKillop, Heather*

**Somers, Lewis [22]** *see Schultz, T. Clay*

**Song, Rhan-Ju (University of Toronto)**[164] *Bioarchaeology in Belize...or a Personal History in Understanding the Human Condition*

This paper traces the evolution of bioarchaeology in Belize and how such research reflects and represents the changing nature of the discipline. Analyses of human remains from central (Belize Valley) and northern Belize (Altun Ha, Lamanai) are considered. Citing the authors' skeletal and dental data, as well as other research this paper reviews the various approaches bioarchaeologists have used to reconstruct ancient Maya health and life history. Importantly, bioarchaeology has been invaluable for understanding Maya prehistory and social change. In future, greater connection of the human condition with socio-economic, ideological and political processes will broaden the contribution of bioarchaeology.

**Sorensen, Kathryn [177]** *see Fedick, Scott*

**Soressi, Marie (Max Planck Institute for Evolutionary Anthropology)**[197] *Discussing the History and the Efficacy of the Chaîne Opératoire Approach to Lithic Analysis: A Personal View*

The author of this paper was educated to study lithics using the chaîne opératoire approach. Nonetheless, she had been working for several years with colleagues adept at the core reduction approach, and consequently she modified some aspects of her original approach while confirming others. In this paper, she presents her goals while studying lithics, her actual protocol of study, and she discusses the advantages and limits of the chaîne opératoire approach.

**Soressi, Marie [76]** *see Hublin, Jean-Jacques; [76]* *see Jaubert, Jacques*

**Sosna, Daniel (University of West Bohemia, Czech Republic), Sládek, Vladimír (University of West Bohemia, Czech Republic), Galeta, Patrik (University of West Bohemia, Czech Republic), Rídl, Jakub (University of West Bohemia, Czech Republic) and Průchov, Erika (University of West Bohemia, Czech Republic)**

[223] *Mortuary Rituals at an Early Bronze Age Site in the Czech Republic*

Early Bronze Age burials in the Czech Republic often show evidence of secondary manipulation of burial content. This phenomenon is interpreted as evidence of looting or mortuary rituals that include the re-opening of graves. Our detailed analysis of the largest Moravian Únětice cemetery, Rebešovice, has shown that there were frequently multiple individuals in a single grave and skeletal elements were highly disturbed. These results illustrate the crucial role of taphonomy for understanding Únětice mortuary behavior. These findings encourage us to be more critical about modeling social differentiation at the beginning of the Bronze Age.

**Sosna, Daniel [141]** *see Sládek, Vladimír*

**Soto, Ricci (Valles Caldera National Preserve) and Civitello, Jamie (Valles Caldera National Preserve)**

[39] *Geoarchaeology in the Valles Caldera: Integrating Management and Research in Site Testing*

Recent test excavations conducted at the Cerro La Jara site (LA132045) in the VCNP have yielded an unexpected geoarchaeological bounty. This complex, multi-component site possesses substantial rock alignments and an extensive surface expression of lithic artifacts. Test units placed in an alluvial fan revealed an artifact-rich buried "A" horizon overlain by 60 cm of non-cultural aeolian and alluvial deposits. Analysis of this case study provides an analog for locating similar deposits elsewhere on the Preserve.

**South, Katherine (Southern Illinois University) and Meissner, Nathan (Southern Illinois University)**

[174] *Formative Figurines from Tayata, Mixteca Alta, Mexico*

This study of figurines is based on recent excavations at Tayata, one of the major political centers in the Mixteca Alta during the Early and Middle Formative. Each of the 179 provenienced figurines was examined chronologically, stylistically, and by household context to facilitate comparisons with other Formative sites in Mesoamerica. Our analysis indicates changes in production frequency and type from the Early to Middle Formative. The longer-term implications of this study pertain to macroregional interactions and the role of figurines in household ritual.

**Speakman, Robert J. (University of Missouri), Popelka, Rachel (University of Missouri), Aldenderfer, Mark (University of Arizona) and Paredes, Rolando (National Institute of Culture, Peru)**

[4] *Analysis of Metal Artifacts from Cutimbo, (Puno, Peru) by Portable-XRF (PXRF)*  
Advances in XRF instrumentation during the last several years have facilitated development of portable-XRF instruments. One major advantage is that instruments easily can be transported into the field or to museums, thereby permitting multi-element analyses of archaeological materials in nontraditional laboratory environments. Fieldwork conducted at the Cutimbo chullpas SE of Puno, Peru, resulted in the discovery of a large Inka funerary urn containing a skull, semi-precious stones, and numerous copper, bronze, silver, and gold artifacts. These metal artifacts were analyzed in Peru by PXRF. Data generated from this study provide valuable information regarding late-prehistoric metalworking in the Titicaca basin.

**Speakman, Robert J. [52]** see Descantes, Christophe; [87] see Little, Nicole C.; [138] see Boulanger, Matthew; [219] see Laguens, Andres; [219] see Sharratt, Nicola; [219] see Szymczak, Joseph; [219] see Williams, Verónica I.

**Speal, C. Scott (Pennsylvania State University)**

[139] *The Economic Geography of Lithic Production in the Maya Lowlands*  
It is known that certain regions of the Maya Lowlands were characterized by specialized production of stone tools in ancient times. The extent, intensity, and net economic effect of centralized production however, is not well understood. In order to address economic issues of general theoretical interest, lithicists must develop analytical tools suited to contextual comparison and the study of complex economies. This research represents an attempt to establish a preliminary baseline statistic—in the form of proportions of early stage reduction—that can be used to compare production of siliceous stone tools at different scales from across the Maya area.

**Spennard, Jon (Florida State University)**

[29] *The Gift of the World for the Gift in the Cave: An Economic Approach to Understanding Ancient Maya Cave Ritual*

Archaeologists studying ancient Maya economy traditionally have focused on the “market” system, and the physical production and distribution of goods within that system. With the exception of those dealing with feasting, economic studies have largely ignored ritual as a significant aspect of the economy. In this paper, I argue that many ancient Maya cave rituals were the physical manifestations of ongoing gift giving relationships between people and supernatural world. Evidence from recent economic ethnographies, the Popol Vuh, and most specifically, archaeological materials from caves in the Cancuén region will be presented to support this argument.

**Spence, Michael (University of Western Ontario), White, Christine (University of Western Ontario), Gazzola, Julie (Instituto Nacional de Antropología e Historia, Mexico), Gomez, Sergio (Instituto Nacional de Antropología e Historia, Mexico) and Longstaffe (University of Western Ontario)**

[236] *Oxygen-isotope Values and Population Movements in Structure 19, Teotihuacan*  
Structure 19:N1W5 is an apartment compound near the Oaxaca Barrio in Teotihuacan. Extensive excavations there revealed a number of indications of Michoacan relationship, including ceramic vessels, figurines and shaft tombs. Oxygen-isotope analysis of 38 bone and enamel samples from the burials show a high proportion (66%) of foreign values, most of which are similar to Michoacan values. They suggest a general pattern of movement between Michoacan and Teotihuacan for most of the individuals included in the sample.

**Spencer, Susan [80]** see Salter-Pedersen, Ellen

**Spensley, Ellen (Boston University) and Moriarty, Matthew (Tulane University)**

[25] *Excavations at an Ancient Maya Harbor: Trinidad de Nosotros, Petén, Guatemala*  
In 2003, excavations began at the ancient Maya site of Trinidad de Nosotros. Located at a protected location on the north shore of Lake Petén-Itzá, Trinidad is thought to have functioned as the port for Motul de San José, 2.6 km to the northwest. As such, a primary objective of recent research has been to understand the nature and timing of construction in the harbor area. This paper presents the results of recent harbor excavations, and considers these findings in relation

to the rest of the site as well as other ancient Maya harbors.

[25] *see Moriarty, Matthew*

**Spielmann, Katherine (Arizona State University) [192] *Discussant***

**Spielmann, Katherine (Arizona State University) and Briggs, John (Arizona State University)**

[118] *Introduction to the Legacies on the Landscape Project*

Since the fall of 2003, archaeology and ecology faculty and students at Arizona State University have jointly collected archaeological and ecological data at Agua Fria National Monument. These data are being used to study the ways in which prehistoric agriculture changed ecosystem structure and function at AFNM. This paper introduces the project's research design, sites, and data collection procedures.

**Spott, Elizabeth (University of Nebraska, Lincoln)**

[104] *Analysis of Lithic Materials from Structure #1 at the Hopeton Earthworks (33RO26), Ross County, Ohio*

The Hopeton Earthworks site (33RO26) is located on the east bank of the Scioto river in Chillicothe, Ohio and is part of the Hopewell Cultural National Historic Park. Since the discovery of this site people have marveled at these complex geometric earthworks that occupy the landscape and pondered their function. The goal of this project is to determine what activities took place at Structure #1 within the Hopeton earthworks, through the analysis of the lithic assemblage excavated from the structure.

**Stackelbeck, Kary (University of Kentucky)**

[53] *Variability in Preceramic Lifeways and Models of Emerging Andean Complexity*

Late Early (ca. 8,500-8000 BP) and Middle Preceramic (ca. 8000-4500 BP) research on the north coast of Peru increasingly indicates organizational variability, even in neighboring valleys. As some societies became more sedentary and began to practice intensive horticulture, as in the Zaña Valley, others continued to practice logistical mobility with a heavy reliance on wild plant and animal resources from various zones, as in the Jequetepeque Valley. Still other patterns are observed among Preceramic societies elsewhere in the Andes. This variability is explored in relation to wider models of the development of complex societies.

[135] *see Lopinot, Neal*

**Stafford, C. Russell (Indiana State University)**

[125] *Archaic Landscapes, Changing Mobility Strategies, and Intra-Site Spatial Analysis at the Caesars Archaeological Project*

Early and Middle Archaic groups in the lower Ohio Valley are usually viewed as mobile hunter-gatherers compared to the more sedentary Late Archaic period. The spatial arrangement of environmental characteristics (landscape elements) on paleolandscapes partially structures the pattern of hunter-gatherer movements. Large-scale block excavations and extensive studies of landscape evolution at the CAP provides an opportunity to compare intra-site spatial patterns between Early, Middle, and Late Archaic hunter-gatherers. Differential spatial patterns of artifacts and features are viewed as a function of changes in mobility strategies through the Holocene. This study suggests that patterns of mobility change are non-linear through time.

**Stahl, Peter W. [178] *see Pearsall, Deborah M.***

**Stahlman, Patricia [70] *see Vento, Frank***

**Staller, John (University of Kentucky)**

[109] *Reconsidering the Role of Early Long-Distance Interaction to the Origins of Andean Civilization*

Multidisciplinary evidence indicates that the elementary forms underlying Native Andean interaction may have their basis in the ancient past. A study of early Andean pottery sites suggests that a religious cult associated with the spread of ceramic innovation may have provided the ideological basis for subsequent complex social organization in different regions of the Andes. The primary material constituents and symbolic correlates of this religious cult are outlined. Later ethnohistoric evidence of religious cults in colonial Ecuador and Peru suggests that certain elements and concepts therein may be traced back to the origins of Andean civilization.



**Staller, John [113]** *see Christie, Jessica*

**Stanish, Charles (UCLA - Cotsen Institute) [235]** *Discussant*; [51] *Discussant*

**Stankowski, Cindy (San Diego Archaeological Center) [127]** *Discussant*

**Stanton, Travis (Universidad de las Americas, Puebla)**

[177] *Donde se Fue? Reconciling Early Postclassic Regional Settlement Patterns in a Post-Overlap Northern Lowlands*

With the deletion of the Early Postclassic as a ceramic period in Yucatecan chronology, a large vacuum has been opened in our understanding of settlement patterns from the period AD 700-1300. In this paper, I suggest that the Early Postclassic may still be a viable chronological period for the northern Lowlands. Architectural evidence from numerous sites across the peninsula suggests varied responses to the so-called collapse in the ninth century AD forcing us to rethink how we should use ceramics as chronological markers during the Mesoamerican Early Postclassic. I discuss the implications of these data regarding regional settlement patterns.

**Stark, Barbara L. (Arizona State University)**

[49] *Perspectives on Mesoamerican Urban Gardens*

Building on the work of Evans (2000) I consider the economic, social, and symbolic dimensions of Mesoamerican urban gardens, especially how archaeological approaches can be developed to analyze urban gardens for periods lacking documentary coverage. The labor investment and social ostentation of gardens and their economic contributions have not played a substantial role in Mesoamerican urban studies, and comparative evidence suggests that this oversight is a substantial handicap in analyzing ancient cities. Examples from the western lower Papaloapan basin in Veracruz, Mexico, are one substantive focus.

[156] *Discussant*; [86] *Discussant*

**Stark, J.T. (Northern Arizona University)**

[99] *Developments in Ruins Preservation: 2005 Stabilization and Maintenance at Keet Seel Pueblo*

Preservation of Ancestral Puebloan architecture in the American Southwest, once neglected, evolved over the past century into a highly specialized discipline. An overview is provided of the National Park Service's current preservation goals of developing and implementing new techniques designed to preserve architectural materials, recover and preserve archaeological data in a concise and thorough manner, and reduce significant modifications to structural character. Relevant examples are drawn from the 2005 preservation activities at Keet Seel Pueblo in Northeastern Arizona to highlight developments in the field of ruins preservation.

**Starkovich, Britt (University of Arizona) and Stiner, Mary**

[215] *Subsistence Change in the Middle to Upper Paleolithic in Greece: Klissoura Cave 1 and Its Context within the Mediterranean Basin*

Little is known about subsistence patterns in southern Greece during the Middle and Upper Paleolithic. Recent analyses of the Middle Paleolithic layers at Klissoura Cave 1 (Peloponnese) coupled with results from one previous study of the Upper Paleolithic layers indicate subsistence changes broadly similar to those that occurred elsewhere in the Mediterranean. Late Mousterian diets consisted of medium ungulates and slow-moving small game, while early Upper Paleolithic inhabitants relied primarily on medium ungulates supplemented by some small quick types. An additional dietary shift occurred in the late Aurignacian, involving greater reliance on fast-moving, small game.

**Steadman, David (Florida Museum of Natural History)**

[90] *Prehistoric Human Impact on Vertebrate Communities in Tropical America*

Human presence affects terrestrial vertebrate communities through habitat modification, hunting, and fishing. Ceramic-making peoples of recent millennia encountered highly varied vertebrate communities in the American tropics. Archaeofaunas from islands often include the remains of species that either are extinct or no longer occur on that island. In spite of local resource depression, continental vertebrate faunas have been much more resilient to human presence. Most archaeofaunal information from the continental Neotropics is from mountainous or arid regions. A challenge is to develop detailed zooarchaeological records for vast areas, such as Amazonia and the Guianas, where such information is sparse or lacking.

**Steele, Teresa (Max Planck Institute)**

[59] *Understanding Middle Stone Age Ecological Variation: Continuing Excavations at Ysterfontein 1, an Atlantic Coast Site, Western Cape Province, South Africa*

Much of our understanding about Middle Stone Age (MSA) ecology derives from sites located along the southern, Indian ocean coast of South Africa. Continuing excavation at Ysterfontein 1 (YFT1), a MSA rockshelter located in a contrasting environment on the western, Atlantic Ocean coast offers the opportunity to assess variation within the MSA. YFT1 is primarily a shell midden, but it also contains classic MSA flakes and flake-blades, ostrich eggshell, and bones from mammals, birds and tortoises. Comparisons with MSA faunal remains from Diepkloof, also on the Atlantic, but further from the coast, expand our knowledge of MSA ecological variation.

**Steelman, Karen [196]** see Rowe, Marvin

**Steffen, Anastasia (Valles Caldera National Preserve)**

[39] *Investigating Obsidian Water Content in Valles Caldera Volcanic Glasses*

Analyses of obsidian composition are critical for both archaeological obsidian sourcing and hydration dating. This study integrates investigation of elemental composition and water content in rhyolitic glasses from Valles caldera sources in the Jemez Mountains in northern New Mexico. Results of LOI and FTIR analyses of water content demonstrate important differences in compositional variation when comparing obsidian-bearing deposits of explosive origin, as in the Cerro Toledo obsidians (e.g., Obsidian Ridge), to glasses formed in extrusive volcanic contexts, as at Cerro del Medio. These results indicate new research directions for improving the performance of hydration dating.

[39] see Seaman, Timothy

**Steinberg, John (University of Massachusetts, Boston) and Carter, Tara (UCSD)**

[85] *Fertile Ground for Christianity: Rational Chiefs and Institutional Change in Viking Age Iceland*

During the Viking Age (872-1264), the people of Iceland maintained a series of chiefly institutions that prevented the concentration of power. The adoption of Christianity in 1000 AD and the introduction of the tithe in 1096 have been credited with changing the institutional structure within which elites struggled for power. Here we argue that institutions associated with Christianity were only adopted after productivity and soil fertility became differentiated to the degree that ownership and land control became practical. In Viking Age Iceland, institutions of property seem to respond to economic changes, as classical economic theory would predict.

**Steiss, Deborah (Archaeological Services Inc.), Hall, Theodor J. (Archaeological Services Inc.), West, Mary (Quest Management Co.) and Federer, Joseph (KSI)**

[6] *The Science of Managing Archaeology*

Managing the investigation of archaeological resources and the resultant archaeological record depends as much on sound project management as archaeological expertise. A comprehensive yet dynamic approach to process improvement and information flow is a prerequisite for best conserving the archaeological record, often the only remnant of the resource. When professional archaeologists develop skills in organizational strategies and structures, they and archaeology benefit. This poster presents an examination of the ways in which the search for a more profound understanding of the science of managing archaeology led a Canadian CRM firm, with their partners, to develop an innovative integrated work system.

**Stelle, Lenville J. (Parkland College)**

[196] *The Blood of the Ancestors Grotto*

The undocumented Blood of the Ancestors Grotto site (11SA557) was identified in the Shawnee Hill Section of southern Illinois in 2005. A detailed visual analysis revealed 23 pictographic elements. However, recent advances in digital imaging and image editing operations allowed for the identification of many more art elements. Additionally, the significant functional magnification afforded by the images made possible the recognition of micro-incising on the wall surfaces. Our investigation has obviated a simple fact: much of the rock art extant within the Grotto was unavailable to the unaided eye and to traditional techniques of data recording and processing.

**Stemp, W. James (Keene State College)**

[164] *Stones with Bones, in Pits, on Thrones: Chipped Chert Artifacts in Ritual Deposits at Minanha, Belize*

Analysis of the chipped chert artifacts recovered from burials, caches, and other ceremonial locations at the site of Minanha, has provided insight into how the ancient Maya incorporated lithics into their ritual spaces. By examining the stone tools and eccentrics from these spaces in terms of raw material type, formal versus informal technology, and associations with other material culture, a picture of Maya perception and use of these locations begins to emerge. Important factors in the placement of these artifacts in ritual deposits at this site include access to lithic resources, complexity of manufacture, and perceptions of the sacred.

**Stephenson, Keith (University of South Carolina) and Ashley, Keith (Savannah College of Art and Design)**

[242] *Hunter-Gatherers in the Mississippian World: An Ocmulgee Perspective*

The Mississippian Southeast commonly is envisioned as a landscape inhabited by maize farmers, organized as chiefdoms, with local and regional administrative centers marked by the presence of earthen platform mounds. Although recent research on small communities and farmsteads has demonstrated great diversity in Mississippian settlement patterns and lifeways, little interest has been directed toward groups who resisted the farming life and the trappings of Mississippian life and persisted as hunter-gatherers in the interstices of the Mississippian world. This paper focuses on one such group—Ocmulgee hunter-gatherers of the Georgia Coastal Plain, who endured not in isolation, but through interaction with others.

**Sterpone, Osvaldo [200]** *see Pastrana, Alejandro*

**Stevenson, Chris [50]** *see Ladefoged, Theng*

**Stevenson, Christopher (VA Department of Historic Resources) and Ambrose, Stanley (University of Illinois)**

[243] *Changing Water Temperatures at Maycock's Point (44PG40) and the Effect on Middle Woodland Subsistence*

Maycock's Point, dating between circa AD 200 and AD 900, contains a high degree of integrity and is well suited to examining why Woodland patterns of lacustrine resource exploitation at this locality terminated in the 9th century AD. We hypothesize that river shellfish exploitation abruptly stopped as a result of a pronounced decline in water temperature associated with the end of the Medieval Warm Period. We evaluate this hypothesis by analyzing the shell Mg/Ca ratios by inductively coupled mass spectroscopy (ICP-MS). Selected shells analyzed by ICP-MS will be radiocarbon dated to further define temporal trends based upon stratigraphic analysis.

**Stevens-Tuttle, Debbie [47]** *see Blom, Deborah E.*

**Stewart, Elizabeth (University of New Mexico), Dawson, Matthew (University of New Mexico) and Marin, Ana Belen (Universidad de Cantabria)**

[150] *The Teeth of El Miron Cave: Personal Adornment and Its Implications for Agency During the Upper Paleolithic*

Perforated animal teeth have often been used for adornment by humans of many cultures, both ethnographically and in the remote past. This was the case at El Miron Cave (Cantabria, Spain), a site with a long culture-stratigraphic sequence spanning the period between the late Mousterian (41 kya) to the present. Excavations since 1996 have uncovered perforated teeth in deposits of three cultural periods: the Solutrean, Magdalenian and Azilian (20-10 kya). The purpose of this paper is to examine human choice in teeth used for adornment and their distribution within El Miron as indicators of variations in site utilization and culture.

**Stewart, Michael (Temple University) [243]** *Discussant*

**Stewart, Roswell [92]** *see Prezzano, Susan*

**Stiner, Mary [215]** *see Starkovich, Britt*

**Stiner, Mary C (University of Arizona - Tucson) and Kuhn, Steven L (University of Arizona - Tucson)**

[83] *A Hypothesis about the Division of Labor among Neandertals and Modern Humans*

Division of economic labor by gender and age is a hallmark of forager societies of the historic

period. Such complementary economic roles for men and women may not have appeared in Eurasia until the earliest Upper Paleolithic. Neandertals displayed a much narrower reliance on large game animals, which also constrained the demographic potential of Neandertal populations. Broadly based economies with a wider range of economic and technological roles may have provided modern humans with a demographic advantage over other hominins in Eurasia during the Late Pleistocene, perhaps an inadvertent consequence of local expansions in dietary breadth in low-latitude habitats.

**Stockdell, Eric [177]** see *Manahan, T. Kam*; [189] see *Goldsmith, A. Sean*

**Stocker, Terry (Chungwoon University) and Dixon, Boyd (PBS&J)**

[147] *The Distribution of Mazapan- Xochiquetzal Figurines as Possible Indicator of a Toltec Empire*

It is proposed that Early-Postclassic Xochiquetzal-Mazapan figurines indicate a weaving cult. Figurines, spindle whorls and cotton production throughout Mesoamerica are discussed as possible expressions of this cult. We propose that the proliferation of weaving at Tula was not the result of innovations to be used only there, but rather the promoting of a pan-empire clothing style. The widespread distribution and content of Xochiquetzal- Mazapan figurines might therefore be read as indicating a Toltec Empire, built upon military subjugation. We propose that the Toltecs were responsible for the final demise of Teotihuacan, through military defeat, with Xochiquetzal-Mazapan figurines providing a clue.

**Stockett, Miranda (University of Pennsylvania) [234]** *Discussant*; [234] see *Schwartz, Lauren*

**Stoddart, Simon (University of Cambridge) and Malone, Caroline (University of Cambridge)**

[111] *Changing Beliefs in the Maltese Body 5000-1000 BC*

The Maltese islands have produced some of the most distinctive representations of the human body in the prehistoric Mediterranean. The present paper will look at the form, style, material, gender attribution, chronology and context of these representations to show how embodiment changed over time. On this basis, and drawing on new data, a fresh interpretation of how Maltese beliefs in the body went through a series of locally specific changes that contrast with surrounding regions. This theorisation will contrast with the all too frequently proposed approaches based on generalised ideas of feminine fertility.

**Stoffle, Richard (University of Arizona), Arnold, Richard (Las Vegas Indian Center) and Van Vlack, Katleen (University of Arizona)**

[2] *Pilgrimage to Black Mountain*

Ongoing documentation of trails and features that lead to the top of Black Mountain, a volcanic peak located in the Nevada Test and Training Range, would not have been possible without the prior existence of a partnership with Western Shoshone, Southern Paiute, Owens Valley Paiute, and Mohave tribes. This long-lived partnership involves an integrated government-to-government consultation and research agenda, sponsored by the US Air Force and facilitated by a team of anthropologists. At Black Mountain, native elders and cultural consultants surveyed the area alongside archaeologists and ethnographers and gave their interpretations of the use, significance, and geographical connections of this landmark. This poster conveys the results of shared work and its broader implications for identifying and preserving cultural landscapes.

**Stojanowski, Christopher M. (Arizona State University)**

[47] *Bioarchaeology and the Study of Identity in Colonial Contexts*

This paper presents a bioarchaeological contribution to the study of ethnic identity and ethnogenesis within colonial North America. Skeletal data are used to model processes of acculturation and socio-political adaptation, and highlight biodistance contributions to the study of contact-period demography, human agency, power and hegemony, and the reconstitution of group identity and history. Linkages between archaeological material culture complexes and modern tribes speak to continuing repatriation and NAGPRA-related tensions and issues within American archaeology. This paper focuses upon the contribution of bioarchaeology to the modern world and presents a topical focus unifying material-based anthropological sciences.

**Stoker, Lindsey (Texas State University -San Marcos)**[115] *Late Formative Occupation at La Tiza, Nasca, Peru*

Recent investigations at the site of La Tiza in the Nasca Valley of Peru reveal new information regarding occupation during the late Formative period. Excavations of three domestic structures produced a significant amount of late Formative and early Nasca ceramic sherds. A commonality in the ceramics between La Tiza and the nearby Formative site of La Puntilla indicates a possible local style emerging in the Nasca region during the temporal transition from the late Formative to early Nasca phase. However, marked differences in their assemblages do exist, indicating possible cultural or class disparities.

**Stokes, Robert J. (Archaeological Consulting Services)**[134] *A Resurgence of Pothunting and Bulldozing Mimbres Sites on Private and Federal Lands in Southwestern New Mexico*

Much to the dismay of the archaeological community, a resurgence of pothunting is occurring across southwestern New Mexico on private and federal lands. The scale of pothunting ranges from shovel probes to bulldozing. Federal and state laws enacted since 1990 served to slow pothunting, especially the destruction caused by bulldozers, but the pendulum is now swinging back towards increased activity. Recent examples of these activities will be discussed and possible reasons for this resurgence will be offered, including lack of manpower to adequately guard sites, escalating prices for Mimbres pottery, and a lack of publicity about the pothunting problem.

**Stone, Andrea (University of Wisconsin, Milwaukee)**[126] *Rock Art at a Supraregional Pilgrimage Site in Western El Salvador*

The stylistic heterogeneity of a collection of carved boulders on the shores of Lake Guija in western El Salvador reflects what is proposed to be the result of pilgrimage activity. Distinct stylistic sources, ranging from southeast Mesoamerica to Lower Central, can be identified. The diversity of artistic styles is a function of a multiethnic clientele characteristic of a supraregional pilgrimage center. This model well fits the location of the rock art site, a linguistically complex region, well situated for long-distance trade in lithic resources found in the nearby Sierra de las Minas in Guatemala.

**Stone, William [62]** see Nicolì, Joe

**Storemyr, Per (Geological Survey of Norway), Heldal, Tom (Geological Survey of Norway) and Bloxam, Elizabeth (Institute of Archaeology, University College London)**[30] *QuarryScapes: Conservation of Ancient Stone Quarry Landscapes in the Eastern Mediterranean*

The heritage of the Mediterranean is predominantly made from stone. Throughout prehistory and antiquity thousands of quarries, often defining large industrial landscapes, were opened. Due to modest scholarly interest, the values of such landscapes, many of indisputable world heritage character, have largely gone unrecognized. Consequently, many are facing indiscriminate destruction from urban and industrial expansion. As the first of its kind, the EU-supported research project QuarryScapes contributes to turning the tide. Through work in Egypt, Jordan and Turkey, the project addresses methods for conservation of ancient quarry landscapes: from recognition and assessment of significance and risks, to management and monitoring concepts.

**Storemyr, Per (Geological Survey of Norway) [73]** *Discussant*; [30] see Heldal, Tom; [30] see Bloxam, Elizabeth

**Storey, Rebecca (University of Houston)**[141] *Site Archaeology and Juvenile Under-Enumeration: Children from Three Pre-Columbian Mesoamerican Sites*

One serious problem for using skeletons in paleodemography is under-representation of the skeletons of infants and young children. The bias has several possible sources: poor preservation, archaeological recovery techniques, excavation location, and cultural practices that treated such deaths differently. Comparisons of the age distribution of deaths in juveniles at Tlajinga 33 (Teotihuacan), Copan, and El Cajón (Honduras) inform me about the possible source of bias in these skeletons. Dramatic differences in archaeological circumstances are indicated, with preservation and recovery techniques only partly explaining the differences. Mesoamericans tended to bury everyone around residences, but at Copan, cultural practices were probably different.

**Stosel, Victoria (CSULA)**[36] *Subsistence Strategies on San Nicolas Island*

This study examines faunal remains from index units excavated from twelve prehistoric archaeological sites from the four main topographical zones on San Nicolas Island. Calibrated radiocarbon dates indicate that occupation ranged from 2850 BC to AD 1675. Total shell and bone weight were used to calculate meat and protein yields. Results indicate a near total dependence on marine resources and that the inhabitants fully exploited their natural environment and incorporated a variety of marine species into their diet.

**Stothert, Karen (University of Texas at San Antonio, Center for Archaeological Research)**[53] *New Light on the Most Ancient Coast of Ecuador*

After 40 years research on the preceramic Las Vegas culture of coastal Ecuador continues to produce fruitful and surprising results. I will outline pending research questions and discuss evidence and interpretations with emphasis on the early cultivation of domesticated plants by Las Vegas people, the development of a mortuary-ceremonial focus by 8000 BP, and the recent excavation of a second Las Vegas base camp site.

[34] *Discussant***Stotts, Rhian (The College of Wooster), Toohey, Erin (The College of Wooster) and Kardulias, P. Nick (The College of Wooster)**[5] *Preserving Local Identity through the Mapping of Historic Cemeteries: A Case Study in Wayne County, Ohio*

The College of Wooster has collaborated with the Wayne County Cemetery Preservation Society to meet two primary goals: (1) to record all historical cemeteries in Wayne County, Ohio, and (2) to educate the public about the importance of cemeteries as monuments of family, local, and regional history. Geophysical work located burials in a cemetery with no extant surface features and students mapped other graveyards with a total station. Locational data have been placed in a GIS database to serve as a central repository of graveyard information and a planning tool. The work helps to foster a local sense of identity.

**Stout, Dietrich (University College London), Schick, Kathy (Stone Age Institute) and Toth, Nicholas (Stone Age Institute)**[17] *A Quantitative Assessment of Mode I Knapping Skill*

The assessment of hominin knapping skill from archaeological remains is an increasingly important objective of Early Stone Age researchers. As part of a broader functional brain imaging (PET) study of Mode I skill acquisition, artifacts produced by six novice subjects before and after a standardized amount of practice were collected. These samples were further compared with those from three expert knappers. Conventional metric analyses were conducted in order to identify quantitative correlates of increasing skill level. Results are compared with previously reported patterns of learning-related changes in brain activation during Mode I knapping and potential archaeological applications are considered.

**Stout, Dietrich (University College London, Institute of Archaeology) [98] *Discussant*****Straight, Kirk [179] *see Silverstein, Jay*****Straughn, Ian (The University of Chicago)**[233] *Imperial Immaturity and the Eccentricities of Early Empire: Archaeological Approaches to the Umayyad Qusūr of the Early Islamic Period Levant*

Building projects, monumentality and imperial intentions tend to be inextricably linked in the archaeological record as well as anthropological theory. Efforts by the state and specific rulers to establish their authority over territories and subject populations through architectural forms has been well documented in numerous cross-cultural studies. These studies, however, have tended to understand the state as a purposeful and almost clairvoyant actor in their attempts to employ the built environment in particular strategies of rule and control. By contrast, this paper questions whether the state actually operates with such forethought or can it in fact make mistakes, especially in its early stages of empire building. In presenting an examination of the enigmatic 8th century structures known as the Umayyad qusūr or "desert palaces," I will offer an archaeological case study that examines the immaturity and successes of the Islamic polity's first forays into a dynastic imperial structure.

**Straus, Lawrence (University of New Mexico)**

[199] *Red Deer and Ibex to Periwinkles and Hazelnuts; Cave Art to Cobble Picks: The Paleolithic-Mesolithic Transition in Cantabrian Spain*

Dramatic changes occurred in human use of postglacial Cantabrian landscapes after c. 9000 14C BP. Interrupting a Terminal Paleolithic trend toward utilization of the montane interior, the Mesolithic is a coastal phenomenon. While the Magdalenian-Azilian transition included the disappearance of cave art, the marked break came with concentration of Mesolithic sites along the Holocene shore. An exception is the interior Basque Country. Mesolithic hunter-gatherers of the upper Ebro Basin incorporated Neolithic cultigens, domesticated animals and ceramics into their lifeways as early as 6500 14C BP. Their coastal Cantabrian neighbors continued as fisher-gatherer-hunters until as recently as c. 5600 14C BP.

**Strezewski, Michael (Indiana University -Purdue University Fort Wayne)**

[5] *Investigations at Kethtippecanunk, an Eighteenth Century French and Native American Town on the Wabash River, Indiana*

Kethtippecanunk was a mixed French and Wea Indian town that was burned by the Kentucky militia in 1791. The town reportedly consisted of about 100 structures, many of them well-built. Despite its regional significance, Kethtippecanunk has never been systematically investigated. Recent geophysical survey and test excavations have focused on relocating the site, determining its extents, and evaluating the integrity and nature of the remains. Portions of at least one French poteaux en terre structure, possibly belonging to Jacques Godefroy, were located and additional structures are likely. The archaeological presence of historic Native American peoples has proven more difficult to identify.

**Stroulia, Anna (Indiana University - Purdue University Fort Wayne)**

[71] *Grains and Grinding Tools from Franchthi Cave, Greece*

Excavations conducted at Franchthi Cave, Greece from 1967 through 1976 brought to light a large number of ground stone tools from the Neolithic period. Judging from their shape, size, raw material, and use-wear, these tools do not seem to have been used for grinding cereals. Franchthi paleobotanical evidence, nevertheless, confirms the consumption of grains throughout the Neolithic. In this paper I will explore how the absence of grain grinding tools can be explained, which techniques might have been used to process cereals, and in which form these were consumed by the Neolithic inhabitants of Franchthi Cave.

**Stuart, David (University of Texas at Austin) [48] Discussant****Stubing, Michael [198] see Davis, Erin****Sturm, Jennie (University of Denver)**

[4] *Using Ground-penetrating Radar to Study a 16th Century Colonial Church and Associated Town in Northern Peru*

In northern Peru's Chicama Valley, there is a colonial-age church and associated town from the early to mid-16th century. The area was first mapped with a Total Station for topography and surface feature identification. Room blocks, streets, and a possible plaza were identified adjacent to the church and a possible ecclesiastical compound. Ground-penetrating radar was collected over six areas in the town and church. Excavation units were placed where the radar showed house floors, standing walls, and possible midden areas. Preliminary results appear to show there were three levels of occupation, spanning approximately a century.

**Sturt, Fraser [196] see Robinson, David****Suasnavar, Jose [238] see Demarest, Arthur****Sudman, Natalie [133] see Wilson, Jennifer****Sugandhi, Namita (University of Chicago)**

[114] *Extracting the Profane from the Sacred: The Use of Texts in Early Historic Period India*

India has a rich and diverse tradition of early literature but the methodology of its incorporation in the practice of Early Historic period archaeology has generally remained un-problematized. This paper seeks to move beyond typical concerns such as the identification of place names or the details of early Indian historical consciousness by addressing some of the issues that may arise when dealing with the earliest Indian texts. This includes an emphasis on understanding

the context from which these texts were transmitted and preserved, as well as consideration of the way in which the contrast between literary and material images should be interpreted.

**Sugiura, Yoko (Universidad Nacional Autónoma de México), Barba, Luis (Universidad Nacional Autónoma de México) and Nieto, Ruben (Universidad Nacional Autónoma de México)**

[142] *Proposal to Recover and Store Archaeological Information of Small Sites in Central Mexico*  
Cultural resource management is one of the most serious problems concerning with present archaeological practices in Mexico. The main tendency of the Mesoamerican Archaeology has been focused on sites with monumental architectures, whereas many small sites have been and are being destroyed. In this paper we discuss, based on the importance of these sites not only because of their numerical preponderance in the archaeological universe, but also for a better problems characteristics of non monumental sites. We also propose an such as archaeology, archaeometry, geophysics, visualization and computer analysis. Due to the fact that the conservation of these sites information obtained from the field work. From this point of view, the integration of the results of these studies is fundamental to create a data base with variables which satisfy diverse characteristics of archaeological research inquiry.

**Sugiyama, Nawa (Arizona State University)**

[140] *Household Ritual at Teotihuacan: Spatial Analysis of Candeleros*

This research explores the distribution and function of candeleros from six zones in the city of Teotihuacan. Spatial analysis of specific attributes in relation to site types, neighborhoods, and the associated ceramic types with which they are found identified clustering of specific attributes. This distribution hints at the function of candeleros which is still not clearly understood. These patterns help interpret ritual behavior at the household level, link potential indicators of ritual functions of candeleros, and may indicate distinctions between barrio groups.

**Suleimanov, Rustam [162] see Glantz, Michelle**

**Sullivan, Alan P. [57] see Bayman, James M.**

**Sullivan, Anne Lise [189] see Beebe, Caroline**

**Sullivan, Kristin (Arizona State University)**

[236] *Figurine Production and Use at Teotihuacan, Mexico: Preliminary Results from the Intensive Survey of Cosotlan 23*

Indications for production of ceramic vessel and figurines and for craft work involving lapidary, obsidian and other stone has been found throughout Teotihuacan's more than 2,000 apartment compounds. However, no figurine workshop has yet been intensively survey or excavated at Teotihuacan, and very few such workshops have been investigated in Mesoamerica. Intensive survey at one Teotihuacan apartment compound, Cosotlan 23 or 23:N5W3, revealed evidence for the production of figurines and other ceramic ritual items. I discuss the field and laboratory techniques employed and present results of the initial examination for evidence of production of figurines and other ceramic ritual items.

**Sullivan, Lauren A. (UMass/Boston)**

[120] *Ceramic Research in the Three Rivers Region*

Ongoing research by the Programme for Belize Archaeological Project (PfbAP) has produced a ceramic assemblage extending from the Middle Preclassic to the Terminal Classic that has advanced our understanding of regional organization in this area of northwestern Belize. Excavations in conjunction with ceramic analyses reveal intensive and extensive occupation throughout the area. These data provide an excellent base from which to discuss the interaction of sites, large and small, throughout the region.

**Sullivan, Timothy (University of Pittsburgh)**

[139] *The Evolution of Political Structure at the Middle Formative through Early Classic Center of Chiapa de Corzo, Chiapas, Mexico*

This study outlines changes in the socio-political organization of the Chiapa de Corzo polity from its inception as a regional center during the early Middle Formative to its decline during the Early Classic period. Utilizing controlled surface collections the study was able to characterize an area of about 100 square kilometers, providing data on changes in settlement density and size, and distribution of occupation. The use of a GIS in the analysis of these data facilitate the evaluation



of geographical features, ecological and cultural factors in the choice of settlement location, and subsequent patterns of growth and development.

**Sunahara, Kay (Royal Ontario Museum), Chartrand, Joelle (Royal Ontario Museum), Healy, Paul (Trent University) and Awe, Jaime (Institute of Archaeology, Belize)**

[164] *Petrographic Analysis of Cunil Phase (900-1200 BC) Ancient Maya Pottery from Western Belize*

The presence of volcanic ash in ancient lowland Maya ceramics has been a topic of debate among scholars for over forty years. Researchers have yet to agree on the reasons for its appearance and widespread distribution in a region that is over 150 km away from known volcanic activity. To examine the issue of ash tempering, the authors implemented petrographic thin section analysis on ceramic samples from centres that have been the focus of Trent University investigations. We present the preliminary results describing petrological characteristics and contextual evidence, to understand the production and distribution of ash wares.

**Sundstrom, Linea (Day Star Research)**

[205] *Will the Circle Be Unbroken: The Roots of Plains Indian Views of the Cosmos*

A universe comprising two space-time divisions characterizes Plains Indian belief systems. One half references the above, north, male, day, red bison, ascending movement, and outward-directed energy; the other with below, south, female, night, black, maize, descending movement, and inward-directed energy. Community organization, built structures, and symbols used on clothing and objects, as well as cultural geography, express this cosmology. Peoples of northern (Algonkian) and southern (Siouan/Caddoan) origin share this basic cosmology, with distinctive practices and beliefs grafted on. The northern versus southern origins of various groups are most strongly reflected in their use of petroforms and in their star lore.

**Sunseri, Jun Ueno [103] see Habicht-Mauche, Judith A.**

**Surette, Clarence [187] see Boyd, Matthew**

**Surface-Evans, Sarah (Michigan State University)**

[125] *Visualizing Social Complexity: The Role of Landscape on Shell Mound Archaic Settlement Patterns in the Central Ohio River Valley*

Shell Mound Archaic hunter-gatherers are generally considered to be part of a broad trend towards increasing social complexity in the North American midcontinent. Current models fail to account for the complex and variable nature of shell mound sites. This research employs a landscape perspective to visualize the spatial contexts of shell mounds. With the aid of GIS it is possible to model the Shell Mound Archaic landscape and examine land use patterns. The observed relationships between shell mounds and various cultural and natural landscape features in the central Ohio valley suggest that these sites had diverse roles.

**Surovell, Todd (University of Wyoming)**

[100] *On the Optimal Size of Lithic Surpluses*

Archaeological sites regularly produce evidence that humans procured more lithic raw material than was absolutely needed at individual sites (e.g., abandoned large cores). Yet, the acquisition of lithic raw materials is a costly activity and procuring more stone than necessary has clear disadvantages. In this paper, I develop a formal mathematical model of optimal lithic surplus creation. I assume that the benefit of surplus creation is preventing or minimizing the possibility of unpredictable and potentially costly lithic shortfalls. Data from Puntutjarpa Rockshelter (Australia) and five late Pleistocene archaeological sites from Wyoming and Colorado provide support for the model.

**Sutter, Richard C. (Indiana University and Purdue University, Fort Wayne) and Verano, John W. (Tulane University)**

[4] *A Matrix Method Test of Competing Models Regarding the Biological Origins of Moche Human Sacrificial Remains*

The prevalent model supported by archaeologists working in northern Peru suggests that the Moche human sacrificial remains were local elite warriors who lost ceremonial one-on-one battles with other local warriors, while others suggest the sacrifices represent professional soldiers from other competing Moche or non-Moche polities. Hypothetical matrices are compared to actual biodistance comparisons among the sacrificial samples and other local

Moche samples. Results of our study indicate the model of non-local origin for the sacrificial victims produces significant results with a higher correlation relative to the ceremonial battle model, which produced a much lower correlation and non-significant results.

**Sutton, Hilleary (University of Montana) and Logan, Blair (University of Montana)**

[105] *Cultural and Taphonomic Analysis of the Tongue River Bison Bone Bed*

The Tongue River buffalo kill site, located on the Northern Cheyenne Reservation in southeastern Montana, was excavated in the summer of 2005 by the University of Montana. This site contains an extensive bone bed, consisting primarily of *Bison bison*, that has been affected by a variety of human activities and taphonomic factors. Butchery and transport activities derived from analyses of element frequencies and cut mark patterns provide an understanding of how late prehistoric hunters utilized the bison. Taphonomic analysis examines rates and forms of bone destruction to determine if, where, and why differential preservation existed.

**Swanson, Steve (Arizona State University)**

[160] *Agricultural Sustainability and Community Resilience during the Transition to Agriculture: A Mimbres Mogollon Case Study*

My dissertation research investigates community resilience and the sustainability of farming strategies during the transition to agriculture in the Mimbres region. Recent models see early pithouse communities as highly mobile, using low-intensity agricultural techniques. Subsequent adoption of more productive maize varieties enabled establishment of sedentary villages along major rivers, but population pressure promoted intensive agricultural techniques and detrimental environmental impacts. This created a less resilient system, resulting in collapse and regional abandonment. I reevaluate this sequence using multiple lines of evidence to investigate the resilient nature of settlements in arid landscapes and the ability of farming communities to navigate change.

**Swanson, Steve [160]** see *Simon, Arleyn*

**Swedlund, Charles [43]** see *Crothers, George*

**Sweetwood, Ryan [179]** see *Burnett, Rich*

**Sweetwood, Ryan V. (Brigham Young University), Terry, Richard (Brigham Young University) and Beach, Tim (Georgetown University)**

[80] *Agricultural Resources of Ancient Rural Sites Surrounding Chunchucmil, Mexico*

The soils of Chunchucmil, Mexico and surrounding areas are shallow and seasonally inundated. Currently research addresses the soil resources that supported thousands of ancient Maya. We will report the characteristics of soil resources of Chunchucmil and satellite sites that might have provided food stuffs for the ancient city. We have examined stable isotopes and biomarkers that may indicate agricultural methods.

**Swetz, Sam (Michigan Technological University)**

[250] *On the Periphery of the Periphery: Archaeology at Hacienda Tabi, Yucatan, Mexico*

Archaeological remains at Hacienda Tabi provide an opportunity to study the effects of large-scale societal changes on the lives of the Maya who worked on the hacienda. The implementation of the hacienda system in Yucatan brought about fundamental changes in economic organization, which in turn changed the basis and therefore the form of social organization. The changing organizational realities found under the system are reflected in the material culture and built environment excavated and recorded at the hacienda. Archaeological evidence underscores the inequalities engendered within the system of production and points to new forms of social status signified by occupation.

**Swenson, Edward (University of Chicago)**

[116] *Ideologies of Centricity and the De-Centering of the City in Late Moche Jequetepeque, Peru*

Rural settlement and ceremonial architecture proliferated in the Jequetepeque Valley during the Late Moche Period, and local communities independently financed elaborate religious spectacles. In fact, hinterland groups sought political entitlement by appropriating once exclusive symbols of urban religious authority. Moche conceptions of elite power, sacrality, and centralization were co-opted and consequently transformed in the Jequetepeque hinterland. The construction of multiple authorizing spaces suggests that rural communities successfully de-

centered the Moche city and subverted its ideological singularity. In considering the Jequetepeque data, this paper intends to shed light on Andean ideologies of city space and politico-religious centrality.

**Swenson, Fern [78]** *see Ahler, Stanley*

**Swihart, Caitlin [108]** *see Reeder, Leslie*

**Swords, Molly (University of Montana)**

[5] *School as Usual: Examining Writing Slate Fragments Excavated at Donner Party Site*

Hoping to shed more light on the events surrounding the sensationalism of cannibalism, archaeologists have been examining the Donner Family Camp at Alder Creek. These investigations yielded a number of artifacts, including writing slate fragments. To the naked eye, the fragments appear to lack remnant writing. Even so, these objects inspired questions regarding the Donner Party families camp life and whether their children practiced schooling and other writing activities to normalize their situation. To address such questions, a Scanning Electron Microscope (SEM) was used to magnify and photograph the slate pieces.

**Sydoriak Allen, Kathleen [35]** *see Shock, Myrtle*; [100] *see Berrey, C. Adam*

**Szremksi, Kashia (Proyecto Arqueológico Norte Chico)**

[168] *Mounds vs the "U:" The Social Implications of Two Different Types of Site Plan in the Norte Chico, Peru*

By directing the manner in which people move through and perceive space, the built environment affects how social interactions occur and thus can influence the nature of social relationships. Analyzing the built environment on a regional scale can prove to be useful in investigating areas where the nature of social organization appears to be in flux. This is particularly true during the Late Preceramic Period in the Norte Chico region of Peru, in which the presence of two distinct types of site organization (mound-oriented vs. U-shaped) suggests the existence of two very different ways of organizing the social world.

**Szuter, Christine (University of Arizona Press) [88]** *Discussant*

**Szymczak, Joseph (U.I.C./Field Museum), Cook, Anita (Catholic University), Isbell, William (Binghamton University), Speakman, Robert J. (Missouri University) and William, Patrick Ryan (Field Museum)**

[219] *Wari Ceramic Production at Conchopata and Cerro Baul: Insights from Sourcing Studies*

Results of INAA and ICPMS analysis of pottery from Conchopata in the Wari heartland and Cerro Baul on the southern periphery suggest specialized elite ceramic production was an important component of Wari statecraft. We review the compositional evidence for production centers of Wari pottery in the heartland and the provinces to assess a hypothesis of differential production and exchange of high status and lower status pottery in each local region.

**Tabares, A. Natasha (Ancient Enterprises, Inc), Wells, Helen (Cotsen Institute of Archaeology, UCLA) and Clewlow, Jr., C. William (Ancient Enterprises, Inc)**

[203] *Obsidian Subsources, Hydration and Projectile Points: New Data from the Rose Valley Region, Southeastern California*

Sourcing of obsidian samples from sites in the Rose Valley region has yielded new data regarding the use of subsources in the Coso Volcanic Field. Hydration readings and diagnostic projectile points both support a time span of 9000 years for occupation of the region. Hydration data also contribute to a growing database of revised time ranges for specific point types in southeastern California.

**Taché, Karine (Simon Fraser University), Smith, Jeannette (University of Alaska Fairbanks), White, Daniel M. (University of Alaska Fairbanks) and Bell, Lynne (Simon Fraser University)**

[194] *Determining Ceramic Residues from Pyrology gc/ms*

In this presentation the authors discuss the preliminary results of pyrolysis gas chromatography/mass spectrometry analysis of organic residues on ceramics. Pyrolysis analysis allows the breaking up of the insoluble fractions of organic residues, which are not volatile enough for conventional residue analysis. In a trial of the method, known species of wild and domestic plants and animals were cooked in separate ceramic vessels over an open fire. The

molecular fingerprint obtained for each residue via pyrolysis analysis highlights the method's potential for distinguishing certain foodstuffs. These preliminary results and the minimal sample size required are quite appealing for archaeological applications.

**Tactikos, Joanne [197]** *see Ferraro, Joseph*

**Tafilica, Zamir [146]** *see Galaty, Michael*

**Takamiya, Hiroto (Sapporo University)**

[63] *Unusual Case? Hunter-Gatherer Colonization to an Island Environment: A Case Study from the Islands of Okinawa, Japan*

Many islands in the world were colonized by *Homo sapiens sapiens* for the first time, not during the Pleistocene, but during the Holocene. It is said that because of limited resource and space available on islands, it must have been difficult for foragers to adapt to island environments. Therefore, agriculture must have been a necessary in order to successfully colonize an island. This paper will provide data on successful colonization by foragers to an island environment from the Okinawa archipelago, Japan. It also will discuss why it was possible for them to sustain themselves by foraging economy during the prehistoric times.

**Taliaferro, Matthew [138]** *see Beale, Nicholas*

**Tanda, Giuseppa [30]** *see Tykot, Robert H.*

**Tarlow, Sarah (University of Leicester)**

[111] *The Extraordinary History of Oliver Cromwell's Head*

In 1661, three years after his death, the body of Oliver Cromwell (probably) was exhumed from Westminster Abbey, publicly hanged and beheaded. Cromwell's body went (probably) into an unmarked pit at Tyburn; and his head impaled above the roof of Westminster Hall, where it remained for 20 years. After disappearing for many years and being exhibited as a curiosity, it turned up at a Cambridge college where it was immured in 1960. This paper considers what the extraordinary adventures of Cromwell's head tells us about the relationship between bodies and persons from the seventeenth to the twentieth century.

**Tarpley, Mike [97]** *see Eubanks, Tom*

**Tate, James (UC Santa Barbara)**

[69] *Continuity in North Coast Material Culture in Late Horizon Peru: Local Level Lords and Economic Opportunity Under Inca Rule*

Imperial conquest is generally accompanied by changes in elite material culture through imposition or emulation. However, following the Inca conquest of Chimor, production and use of local high-status products continued and may have increased through local processes and/or Inca co-option of Chimu styles. Research from El Brujo in the Chicama Valley suggests that the decentralization of Chimu administration provided a mechanism for local level lords to increase their authority and wealth by producing their own elite products. Why local leaders continued to produce Chimu symbols of power reflects north coast organization where status was not conferred by Inca authority.

**Tate Iruegas, Melinda [97]** *see Iruegas, Sergio*

**Tatsey, Keith [2]** *see Zedeno, Maria Nieves*

**Tatsey, Terry [2]** *see Zedeno, Maria Nieves*

**Taube, Karl [48]** *see Lang, Rebecca*

**Taube, Rhonda (UC San Diego)**

[147] *The Figurines of Piedras Negras: An Iconographical Report*

Thanks to the excavations by the Proyecto Arqueológico Piedras Negras a remarkable quantity and quality of figurines were uncovered. Excavations focusing primarily in residential and palace areas in the south group of the Acropolis were completed between the years of 1997-2000. The figurines total approximately 5,000 individual pieces. Because of this unusually high amount, Piedras Negras figurines represent one of the most significant databases from the Maya Classic

period, as approximately one thousand figurines or fragments contain recognizable imagery. Because of their extensive distribution, they constitute one art form that intersects between the royalty and "commoners."

**Taylor, Christine [246]** *see Heron-Matthews, Leah*

**Taylor-Montoya, John (Southern Methodist University)**

[217] *After the Ice Age: Explaining Early Holocene Technological Change*

The early Paleoindian period is characterized by a widespread artifact style (Clovis and related fluted points), redundancy in the tool kit, and the frequent use of high quality exotic toolstone. Later in the Paleoindian period there is a shift in the archaeological record with evidence for region-specific artifact styles, a diversification of tool kits, and increased utilization of local resources. Prevalent explanations evoke climate change or reduced social interaction due to the "settling-in" process. This study is a preliminary attempt at evaluating these hypotheses within an evolutionary theoretical framework using evidence from late Paleoindian sites on the southern Plains.

**Teather, Anne (University of Sheffield)**

[30] *Integrating Extraction in Neolithic England*

Neolithic flint mines in England have a stratigraphy at some sites that extends over a thousand years. New investigations at these sites indicate deposition is similar to other sites of the same period. Deposition occurs within shafts outside of typical extraction sites (Cranborne Chase, Dorset). In Dorset, two shafts provide contrasting and complementary evidence – the Fir Tree Field shaft (a natural shaft) exhibits Mesolithic deposition, yet the Monkton Up Wimborne shaft was created as part of larger monumental activity. This paper contrasts typical extraction/non-extraction sites and integrates extraction activity into dialogues concerning social activity in the Neolithic of southern England.

[73] *Discussant*

**Tebben, Alexander (Ohio State University)**

[153] *Intra-Site Variability in Ceramic Distribution at Vésztő-Bikeri, Hungary*

This project seeks to explore the use patterns of the ceramics found on the Vésztő-Bikeri site in Southeastern Hungary. Spatial distributions were analyzed with the nine excavation blocks serving as the basic units of analysis. The size and context of the excavation block has little effect on the distribution of vessel types across the site, and this lack of variability, which is reflected in analyses of artifact decoration as well, poses an interesting problem for interpreting the social organization on the settlement.

**Teeter, Wendy [123]** *see Alvitre, Cindi*

**Tennant, Edward (University of Florida)**

[13] *Landscapes of Power: Historically-Driven Spatial Comparisons of Two Coal Mining Settlements from the High Arctic Island of Spitsbergen*

Located at 89 North, the early twentieth century mining towns of Old Longyear City (American) and Advent City (British) represent the first, capital-intensive attempts at coal mining on Spitsbergen. Historical and spatial comparisons shed light on why Advent City failed five years after construction and Old Longyear City prospered for decades. This paper uses GIS analysis to explore how the American and British overseers' attitudes toward labor and leisure management affected everything from spatial arrangement of the camps to overseer-worker relations with the Scandinavian workforce at Old Longyear City and the Scottish workforce at Advent City.

**Tennesen, David (University of Minnesota)**

[36] *Paleo-Arctic to Northern Archaic: Early Lithic Technology in Lake Clark National Park and Preserve, Alaska*

In 2005 the National Park Service completed a four-season survey of interior lands in Lake Clark National Park and Preserve. This project produced significant insights into the early development of lithic technology in the Lake Clark area. These results provide an opportunity to consider the relationship between the earliest microblade-producing traditions in the region and the subsequent Northern Archaic tradition. This paper discusses early (approximately 10,000 to 4,000 BP) lithic technological developments in the Lake Clark area and compares them to adjacent regions.

**Tenorio Castelleros, Dolores [173]** *see Cruz Jiménez, Ricardo Leonel*

**Tercero, Geraldina (Museo de Antropología e Historia del Valle de Sula)**

[237] *Practicing Archaeology in Honduras: Reflections of a Native Archaeologist*

This paper examines the history of Honduran archaeology from the nineteenth century to the present day, arguing that the focus of investigations at the Maya site of Copan—in part due to institutionalized politics serving a national identity program—have marginalized the development of research and the knowledge of other Honduran archaeological areas. The practice of archaeology in Honduras, particularly in Copan, has been done mostly by foreign professionals, and this has limited the academic formation of native professionals. However, questioning this situation requires an understanding of the political and economic history under which Honduran archaeology has operated.

[210] *Discussant*

**Terrell, Brandi [108]** *see Reeder, Leslie*

**Terrell, John Edward (Field Museum of Natural History) [1]** *Discussant*

**Terrenato, Nicola (UNC Chapel Hill) [245]** *Discussant*

**Terry, Karisa (Washington State University), Andrefsky, Jr., William (Washington State University) and Konstantinov, Mikhail (Chita State Pedagogical University)**

[133] *Raw Material Durability, Function, and Retouch Intensity*

Stone tool reduction intensity and raw material availability have often been correlated with human organizational strategies. Assemblages from early, middle, and late Upper Paleolithic sites in the Transbaikal region of Siberia were compared and assessed for retouch amount using several techniques. These studies reveal that artifact function correlates with raw material selection, where certain kinds of activities such as scraping and cutting are most effectively accomplished with specific raw material characteristics. It is also shown that stone tool functional requirements play an important role in the amount and intensity of retouch regardless of availability of raw materials.

**Terry, Karisa [150]** *see Buvit, Ian*

**Terry, Richard E. (Brigham Young University)**

[185] *Soil Chemical Analysis of Extractable Elements, Stable Isotopes, and Biomarkers in Maya Archaeology*

Human activities performed in the same place over long periods of time leave behind distinct inorganic and organic chemical signatures. Field test procedures for soil phosphate are useful in the prospection of important archaeological features. Extractable P and heavy metals in soils and floors provide information on household, workshop, and ritual activity areas. Stable carbon isotope analyses provide interesting information about ancient maize agriculture on a variety of landforms in the Maya Lowlands.

**Terry, Richard [80]** *see Sweetwood, Ryan V.*; [80] *see Bair, Daniel*; [179] *see Burnett, Rich*

**Thacker, Paul (Wake Forest University) and Almeida, Francisco (Portuguese Institute of Archaeology)**

[76] *Middle Paleolithic Flake Technology and Raw Material Use at Vinhas, Alentejo, Portugal*

Because of its geographical location on a high terrace of the Guadiana River, the open-air site of Vinhas is an important addition to existent studies of technological organization during the Iberian Middle Paleolithic. The recovered lithic assemblage consists of cores, large flakes, and flake tools manufactured exclusively on local quartzes and quartzites. An analysis of core organization and blank attributes details consistency of reduction strategy across highly variable raw material type and cobble size. The raw material economy evident in assemblage patterning at Vinhas dovetails with local resource exploitation models developed in other regions of Portugal.

**Thacker, Paul [42]** *see Wright, Alice*

**Thays, Carmen [21]** *see Peters, Ann H.*

**Theler, James [100]** *see Nolan, Kevin*

**Thomas, Ben (Archaeological Institute of America)**

[190] *Location, Location, Location: Applying a Real Estate Cliché to Maya Settlements in the Sibun River Valley, Belize, Central America*

Four seasons of field research in the Sibun River valley have yielded considerable information about ancient Maya settlement in the region. While the settlement patterns observed in the valley generally resemble those found elsewhere in the Maya Lowlands, specific features discovered in the Sibun River valley represent local solutions to the challenges faced by the ancient settlers who were confronting a variable and volatile riverine landscape. This paper describes the nature of settlement in the valley—emphasizing the Sibun River's effect on the settlers' physical, political and ideological perceptions of their landscape and on their choices for ancient settlement locations.

**Thomas, Edith L. (Navajo Nation Archaeology Department, Northern Arizona University Branch Office, Flagstaff, Arizona)**

[92] *The 2005 Navajo Pathways Project: An Archaeological Field School for Navajo Nation Students in Grades 7-9*

The 2005 Navajo Pathways Project was an archaeological field school that taught theory and field methods to young students of the Navajo Nation. This project was made possible through a National Science Foundation Grant sponsored by the Mashantucket Pequot Tribe of Connecticut, the Navajo Nation Museum, and the Navajo Nation Archaeology Department. I am a Native American graduate student, employed by the Navajo Nation Archaeology Department, who was also a Crew Leader for the project. I would like to present my perspective of how this field school was beneficial to not only the Navajo students, but also to the Navajo Nation community.

**Thomas, Elaine L. [96]** *see Bendremer, Jeffrey C.*

**Thomas, Stephen C. [241]** *see Williamson, Ronald F.*

**Thompson, Jessica (Arizona State University)**

[59] *Faunal Exploitation at Blombos Cave, Western Cape, South Africa*

Blombos is a small coastal cave site situated near the modern town of Still Bay, Western Cape, South Africa. A rich Middle Stone Age (MSA) deposit underlies a sterile dune dated to about 67 ±3.8 ka. Several artifacts rare to absent in the MSA have been recovered at the site, such as engraved bone and ochre, bone tools, and shell beads. Taphonomic analysis of the larger mammals allows inferences about human faunal accumulation, prey selection, and processing strategies. This in turn will help to situate the unique artifact assemblage from Blombos in its greater subsistence-behavioral context.

**Thompson, M. Scott (Arizona State University)**

[108] *Evaluating a Dual Organization in the El Morro Valley, New Mexico*

Pueblo IV Period communities in the El Morro Valley, New Mexico underwent dramatic changes as the population aggregated into large, nucleated pueblos. This study examines a hypothesis that El Morro Valley communities had a dual organization that linked two or more of these villages. It reviews relevant ethnographic data, develops test implications for the presence of a dual organization among El Morro nucleated pueblos, and evaluates these implications with settlement pattern and ceramic data.

**Thompson, Tim [22]** *see Schultz, T. Clay*

**Thompson, Victor (South Carolina Institute of Archaeology and Anthropology) and Andrus, Fred (University of Alabama)**

[8] *Monument, Midden, or Both: Evaluating Coastal Georgia Shell Rings through Stable Isotope Geochemistry*

Two of the most salient anthropological questions regarding Southeastern shell ring sites are related to the season(s) that they were occupied and whether or not the deposits represent monumental constructions. This paper addresses these questions through the analysis of stable isotope  $\delta^{18}\text{O}$  ratios of clam (*Mercenaria* sp.) and oyster shells (*Crassostrea virginica*) at the Sapelo Island Shell Ring complex located on the Georgia coast. The season of death of individual specimens and their position in the shell matrix at Sapelo provides important information on the rate of shell deposition and the season(s) the site was occupied.

**Thompson, Victor D. [22]** *see Reynolds, Matthew D.*

**Thompson, William [5]** *see Hart, Siobhan*

**Thomson, Sharon [92]** *see Francis, Peter*

**Thulman, David (Florida State University)**

[226] *Reconstructing Intraregional Paleoindian Territories in Florida*

Differences in the morphology of chipped stone projectile points are often used to differentiate social groups, but questions always linger concerning the real social significance of subtle morphological variation. In many areas, isolated artifacts, mixed multi-component sites, and imprecise chronological control present profound obstacles to extracting archaeologically significant information from the data. In this project, individual, out-of-context Paleoindian points in Florida are used to test whether inter-regional variation and concentrations of artifacts can be used to discern sub-regional variation that can be proxies for social territories using theories of social differentiation and organization.

**Thurston, Tina (SUNY Buffalo)**

[206] *Iron Age People and Places in Transition: Chaos, Turmoil, Mayhem, Mess and Muddle*

Doug Price's influence on the author's work is most clearly seen in a tendency to question extant notions about regional uniformity and cultural homogeneity when interpreting archaeological data. Change does not occur evenly or contemporaneously, and things do not always change in the same direction. This paper considers mutinies, rebellions, uprisings and social disorder in Iron Age and Early Medieval Scandinavia from both elite and non-elite perspectives, through archaeological data, ethnohistorical and historical documents, ethnographic analogy, and contemporary social theory.

**Tiballi, Anne (Binghamton University)**

[21] *Controlling the Means of Production: Textile Manufacture and the Gendered Body in the Inka Empire*

Drawing from the fields of phenomenology, feminist theory, and technology studies, this paper shows the ways in which Andean peoples' participation in textile production simultaneously produced them as gendered bodies. The primary subject of this analysis is the *acla*, or chosen women, and their position within the Inka state. The potential of examining gender and craft production from a body-centered viewpoint is examined in relation to other interpretations of the *acla*, such as those of Zuidema, Murra, and Silverblatt. Additionally, the impact of 16th century European conceptions of the body in colonial accounts of the *acla* is explored.

**Tiesler, Vera (Universidad Autónoma de Yucatán) and Cucina, Andrea (Universidad Autónoma de Yucatán)**

[47] *Maya Dynastic Burials and the Recreation of Posthumous Body Treatments of Ancient Aristocracy*

The recreation of Classic Maya noble biographies has witnessed important advances in recent years, drawing increasingly also from skeletal studies. This study on posthumous body treatments is founded on the human taphonomy and residue analysis of 18 Classic period elite burials from Calakmul, Palenque, Toniná and Ek Balam, five of which have been assigned to named dynasts. Enhanced with information gleaned from epigraphy and material culture, our results provide new insights on the personalized death cult and the complex ritual treatments of dead paramounts, while at the same time pointing toward some potential pitfalls in taphonomic appraisals in the region.

**Tillquist, Christopher (University of Louisville), Schwallie, Brandy (University of Louisville), Crespo, Fabian (University of Louisville), Gatenbee, Chandler (University of Louisville) and Pollack, David (Kentucky Heritage Council)**

[251] *What Was Buried in the Old Frankfort Cemetery? Using Ancient DNA to Leverage Anthropometrics*

Analysis of an early cemetery used by regular folk can provide insight into the demographic dynamics of early to mid-nineteenth century Kentucky. Anthropometric data suggest contributions from Native American, African, and western Eurasian populations. DNA analyses were undertaken to clarify population affinity. Mitochondrial sequence was amplified from ancient DNA isolated from intact teeth. A custom glovebox was used for genomic isolation and amplification to avoid contamination, and multiple clones of each replicate were sequenced to



ensure stability of phylogenetic signal. Preliminary data from 10 individuals suggest DNA degradation is a significant issue in recovery of ancient DNA from dental remains.

**Timmins, Peter (University of Western Ontario/Timmins Martelle Heritage Consultants)**

[35] *A Buried Archaic Component in the Southeastern Lake Huron Basin*

Recent excavations on the South Bend site located in southern Ontario revealed a buried paleosol that yielded faunal and artifactual materials probably contemporary with the Nipissing Phase of Lake Huron (ca. 5000 BP). The stone tool assemblage includes projectile points that are similar to water-worn points from the nearby Pascoe site located along the southern margin of the Nipissing beach. Morphological correlates to these artifacts exist throughout the lower Great Lakes and the Midwest. This paper describes the South Bend collections and, through comparative analyses, places them in the context of the Archaic in the lower Great Lakes and Midwest.

**Timmons, Rebecca (USDA Forest Service, Kootenai National Forest)**

[225] *Predicting the Past-Prehistoric Probability Modeling through GIS Tools*

The interior northwest landscape is made up of glacially scoured steep mountain side-slopes, narrow river valleys, lacustrine terraces, glacial lakes and dense vegetation. It is home to 8,000 years of hunter and gatherer prehistory. The dense vegetation makes archaeological survey challenging, contributing to minimal ground visibility. The Forest Heritage Program team has turned to predictive modeling to provide an additional survey tool. The prehistoric probability GIS model uses landform, water, vegetation, slope and aspect to order predictions for site density. This tool has proven to be invaluable in providing focus for areas to conduct subsurface testing as part of survey.

**Tinker, Keith (Bahamas Antiquities) and Turner, Grace S. (William and Mary)**

[244] *Dark Visions from the Ocean: Lucayan Perspective on a Spanish Vessel*

Columbus' first landfall in the Americas was on Guanahani/San Salvador one of the Lucayos islands, now called the Bahamas. Within 30 years of this momentous voyage the people who greeted this crew were gone; enslaved and relocated elsewhere. Having no written language, archaeology is a major source of information about these early Bahamians. Examination of archaeological material such as the graffito of a European ship can potentially add insight on the Lucayan perspective of this encounter. For Lucayans, it seems, the most enduring symbol representing Europeans was an approaching vessel, mute testimony of the nature of their cultural contact.

**Todd, Lawrence [105] see Kinneer, Christopher**

**Tokovinine, Alexandre (Harvard University), Estrada-Belli, Francisco (Vanderbilt University), Foley, Jennifer (Vanderbilt University), Hurst, Heather (Yale University) and Ware, Gene (Brigham Young University)**

[238] *New Early Classic Maya Texts from the Holmul Region: More Light on the Teotihuacan Entrada*

The 2005 research season at the site of La Sufricaya in Peten, Guatemala offers new archaeological and epigraphic evidence of the Early Classic period. A painted inscription sheds new light on one of the most important episodes in Maya history, the Teotihuacan entrada. A painted wall from the same structure displays mythological scenes in an Early Maya style with implications on the use and function of palace rooms. The new evidence enables us to make a hypothesis on the role of the local elite in the establishment of a new order in the Maya Lowlands around AD 378.

**Tomas, Gallareta N. [49] see Ringle, William**

**Tomasto, Elsa [21] see Peters, Ann H.**

**Tomczak, Paula [10] see Berryman, Carrie Anne**

**Toney, Joshua (University of Florida), Heckenberger, Michael (University of Florida) and Crock, John (University of Vermont)**

[90] *Amazonians in the Caribbean: The Archaeological Signature of the Arawak Diaspora*

Archaeological and linguistic evidence suggests a major migration of Amazonian Arawakan speaking peoples into the Caribbean (ca. 2500). Evidence of this migration is characterized by

two separate archaeological signatures. The first is distinct anthropological landscape transformations and specific social imprints on that landscape in the form of circular plaza villages. The second signature is found in the related assemblages of ceramic material culture scattered from the Amazon basin into the Lesser Antilles. These complicated and variable movements of Arawakan speaking peoples are discussed archaeologically with recommendations for further research.

**Tong, Stephen S.C. [244]** *see Brill, Robert H.*

**Tonoike, Yukiko (Yale University)**

[103] *Beyond Style: Petrographic Analysis of Dalma Ceramics in Two Regions of Iran*

Dalma ceramics have been identified in two widely separated regions, northwestern and central Zagros. Stylistic characteristics show strong similarities between the two regions and archaeologists have speculated that Dalma ceramics originated in northwestern Zagros and were carried into central Zagros as a stylistic element intrusive into a local tradition. However, this speculation and the possible mechanisms for its distributions cannot be substantiated through stylistic analyses alone. Petrographic analysis gives insight into the technological style of Dalma ceramics and the possible interactions between the two regions. This analysis is the first step in a larger archaeometric study.

**Toohy, Erin [5]** *see Stotts, Rhian*

**Toohy, Jason L. (University of California, Santa Barbara)**

[51] *Militarism and Competition over Strategic Locations at the Late Cajamarca Community of Yanaorco*

A synthesis of recent fieldwork in the Cajamarca highlands points to an early LIP power vacuum that was filled by increasing competition among regional polities in an increasingly militaristic environment. This fieldwork indicates that there was indeed a shift in occupation emphasis to defensible and often fortified locations. Excavation at Yanaorco at the head of the Jequetepeque Valley provides a detailed view of a heavily fortified community that developed rapidly after the fall of Wari influence in the Cajamarca Region. Work here indicates that occupation in this and possibly other fortified villages was year round during much of this period.

**Toohy, Jason [212]** *see Bouroncle, Jimmy*

**Topic, John (Trent University)**

[235] *Domestic and Political Economy at Chan Chan, Peru*

Archaeologists now use the term "city" much more flexibly than they did twenty years ago, and there is less debate about necessary attributes that define a city. But with looser characterization of all large sites as cities, there is a tendency to presume the presence of the organizational traits that once defined cities. One approach to understanding structural differences among large sites is to pay close attention to both the domestic and political economies. This paper examines the inter-relationship of domestic and political economy at Chan Chan, Peru.

**Topping, Peter (English Heritage) and Field, David (English Heritage)**

[30] *Neolithic Axe "Factories" and Flint Mines: Towards an Ethnography of Prehistoric Extraction*

This paper will present a range of case studies drawn from the British Neolithic period which will further develop the debate surrounding the ritualisation of prehistoric extraction. Although not all extraction sites were ritualised, a number of them clearly were and feature placed deposits, curated off-site artefacts, burials and "non-functional" carved objects amongst their assemblages. A contrast will be drawn between prominent mountain-top axe quarries and the "hidden" flint mines. Inaccessibility of location and the recognisability of raw materials appear to be key elements to understanding extraction site locations and the social importance of the finished artefacts.

**Topping, Peter (English Heritage) [73]** *Discussant; [74]* *see Field, David*

**Torres, Elva [10]** *see Andrusko, Valerie*

**Torres, Joshua (University of Florida)**

[145] *Tibes and the Socio-Political Landscape: Interaction, Integration and the Community*  
The Ceremonial Center of Tibes located in the modern municipality of Ponce, on the south-

central coast of Puerto Rico, was a focal point of interaction for the pre-Columbian peoples of the region between approximately AD 1 and AD 1200. At the site religious, political, economic and, social activities were potentially played out between people from dispersed villages and communities throughout the south-central coast. In this presentation, the author discusses the potential relationships between ceramic age sites in the area surrounding Tibes and in doing so offers a dynamic picture of the social landscape in relation to this important site.

**Torres, Joshua M. [84]** *see* Rodríguez Ramos, Reniel

**Torres-Etayo, Daniel (Centro Nacional de Conservación, Restauración y Museología)**

[112] *El Sitio Arqueológico y la Plaza Ceremonial de Laguna de Limones, Maisí, Guantánamo*

En esta ponencia se presentan los resultados del proyecto de investigación sobre el sitio arqueológico Laguna de Limones. Estos trabajos de campo incluyen la realización de levantamientos topográficos detallados de la plaza ceremonial, así como a la determinación de la configuración general de su área de habitación. Con estos datos se realizaron mapas topográficos de alta calidad y resolución que permitieron ver detalles de la plaza ceremonial y el sitio, hasta la actualidad ignorados. Esta nueva información proporciona la base de una nueva interpretación de la función de la estructura y el sitio en general.

**Torres-Rouff, Christina (Colorado College)**

[51] *Surviving Troubled Times: Bioarchaeological Insights into the Middle Horizon / Late Intermediate Period Transition in San Pedro de Atacama, Chile*

The Middle Horizon to Late Intermediate Period transition in the Chilean Atacama embodies, at a small scale, many of the patterns seen throughout the Andes. Archaeological evidence shows substantial population decrease and consolidation, and the construction of pukaras. At the same time, there was a restructuring of local culture following the loss of prosperity and prestige after the Middle Horizon. Data was collected from over 400 individuals from four cemeteries in San Pedro de Atacama, demonstrating that the onset of the Late Intermediate was accompanied by escalating violence, increased nutritional stress, and intensification of local identity.

**Torres-Rouff, Christina [10]** *see* Costa Junqueira, Maria Antonietta

**Tosi, Maurizio (University of Bologna, Italy)**

[85] *Scaling Political Complexity in Terms of Work Forces and Labor Organization*

In spite of efforts by the processual school archaeological contributions to the debate on the origins of pristine capital and the social organization of production in complex societies remain negligible. Progress has been hindered by the lack of comprehensive factors of scale to relate labor inputs to levels of complexity in a cross-cultural perspective. Digital geonomics, combined with ethnohistorical observations and experimental replications, makes it possible to scale the labor inputs a given population needs for the management of territory and resources. Case studies from both Old and New World are presented to scrutinize their scaling by orders of magnitude.

**Tosteson García, Hugh C. [161]** *see* Meléndez Ortiz, Sharon

**Tostevin, Gilbert (University of Minnesota)**

[197] *Levels of Theory and Social Practice in the Core Reduction Sequence and Chaîne Opératoire Methods of Lithic Analysis*

There are more areas of overlap as well as distinction between the Core Reduction Sequence and Chaîne Opératoire methods of archaeological analysis than the current debate recognizes. While methodological differences have been acknowledged, high-level theory differs to a greater degree than is currently appreciated, partly due to the social practice of archaeology in different contexts. This paper discusses the points at which the methods are not mutually exclusive or redundant. The distinction between a decision hierarchy and a production hierarchy in artifact design is used to elucidate how the practitioners of both methods can more successfully integrate their approaches.

**Tostevin, Gilbert [162]** *see* Glantz, Michelle

**Toth, Nicholas (Stone Age Institute/Indiana University), Schick, Kathy (Stone Age Institute/Indiana University) and Semaw, Sileshi (Stone Age Institute/Indiana University)**

[17] *Further Investigations into the Oldowan: Lessons from the Prehistoric Record, Experimental Archaeology, and Apes*

The nature of Oldowan sites is assessed based upon the analysis of archaeological sites, a long-

term experimental archaeological program into the manufacture and use of Oldowan tools, and an ongoing program teaching modern African apes to make and use stone tools. Here we examine different levels of technological skill between three genera (*Australopithecus*, *Pan*, and *Homo*), make predictions about possible characteristics of archaeological assemblages that may predate the earliest known Oldowan from 2.6 million years ago, and propose new criteria for better understanding and effectively comparing/contrasting Oldowan sites.

**Toth, Nicholas [17]** *see Stout, Dietrich*

**Toumazou, Michael [41]** *see Jones, Christin*

**Towner, Ron [106]** *see Barlow, Renee*

**Townsend, Rhys [232]** *see Wandsnider, LuAnn*

**Toya, Chris (Pueblo of Jemez)**

[129] *The View from Walatowa: A Jemez Pueblo Perspective on Archaeology and Traditional Cultural Properties*

This paper presents the views of the Jemez Pueblo Cultural Resource Advisory Committee on the relationships among Jemez Pueblo, our ancestors, and archaeology. It will reflect upon the complex feelings of the Jemez People regarding archaeology and archaeologists—positive and negative—focusing on the history of our relationship with archaeology, NAGPRA, and the growing role of archaeology in the protection and preservation of our rich cultural heritage today. Furthermore, this paper will detail the importance of the protection of our Traditional Cultural Properties, and the recent initiative of the Jemez Department of Resource Protection to document and protect TCPs.

**Trachman, Rissa (University of Texas at Austin)**

[120] *Household Ideology?: Intersections of Maya Ideology, Identity, and Household Social Organization in Northwestern Belize*

A household archaeology study in northwestern Belize was carried out during 1999 through 2003 field seasons. The study was aimed at answering questions regarding the relationships of everyday household activity, microscale social organization, community organization, identity performance and Maya ideology. Though expressed vastly different from the politico-elite in civic ceremonial centers, clearly, everyday identity and ideological expression by the household Maya intersects with larger scale Maya society. Its manifestations are apparent in household material remains, the use of space, architecture and ritual behavior.

**Tratebas, Alice M. (BLM), Dorn, Ronald I. (Arizona State University) and Cervený, Niccole (Arizona State University)**

[196] *Effects of Fire on Rock Art Dating*

Experimental rock art dating needs basic research into factors that affect dating. Wildfire damage to a previously dated petroglyph site provided paired pre- and post-fire samples of rock coatings to test the effects of fire on dating. The research also explored newer methods of dating not used in the pre-fire dating. Methods of increasing the reliability of dating results included varnish microlamination analysis, a dating method validated in blind tests, and cross-checking the results with multiple dating methods. Results show that new dating methods have promise, and also that fire can damage petroglyphs on a microscopic level and prevent dating.

**Traxler, Loa (University of Pennsylvania Museum)**

[210] *Wil Ohl K'inich and the 6th Century Copan Acropolis*

The rulers of Copan during the sixth century AD transformed the Acropolis with expansive additions to the royal complex. One of these rulers, Wil Ohl K'inich, dedicated Ante Structure with its elaborately decorated terraces and superstructure. West of Ante lies the tomb that likely held the remains of Wil Ohl K'inich, who died ca. 551. Recent analyses conducted on tomb materials suggest close relations with Quirigua and other polities during his reign. Succeeding rulers witnessed less secure political times. The shrine covering the Sub-Jaguar tomb was destroyed, and its remains covered with a new building designed to mirror Ante.

**Triadan, Daniela (University of Arizona)**

[147] *Late Classic Male Figurines and Their Social Context*

Male figurines have not been extensively analyzed as to their role in Maya society although their

representations are common in Late Classic times. To assess gender social, and political roles in Late Classic Maya society comprehensively, an analysis of male imagery is essential, especially when one asks who made figurines for whom, and how they were used. Figurines from elite buildings at Aguateca reflect rare assemblages that were in use or storage at the time of abandonment. They provide thus a unique opportunity to investigate the social context of Late Classic male figurines within elite households.

[156] *see Inomata, Takeshi*

**Trierweiler, W. Nicholas (Ecological Communications Corporation)**

[110] *Thinking Outside the Pot: A Career of Dangerous Ideas*

Throughout his career, Jim Hill was interested in attempting what had not been achieved before. Some of his theoretical and methodological approaches were successful, others were not. He was one of the first scientists to seriously propose that the social organization of extinct societies could be deciphered from their material remains in archeological context; his work in this field remains seminal. This paper will examine some of his other "dangerous ideas" about the archeological record in aggregate, including isolating the evidence for individual prehistoric persons and identifying phenomenologically real spatial boundaries.

**Trimble, Michael K. (Army Corps of Engineers) [127] Discussant**

**Tripcevich, Nicolas (UC Santa Barbara)**

[53] *Mobility and Exchange in the Andean Preceramic: Insights from Obsidian Studies*

Regional patterns of obsidian use during the Andean preceramic can shed light the developments that took place during this long and variable period. Data from recent survey and testing at the Chivay obsidian source provides information about the preceramic use of lithic source areas. These data are examined in conjunction with published obsidian distribution data from the Andes in a GIS environment in order to evaluate models of preceramic mobility and regional interaction. Transformations that occurred during the preceramic, such as the domestication of camelids and early social complexity, can be explored with data from obsidian procurement and distribution.

**Troy, Scott (Youngstown State University)**

[78] *The Gartner Village and Mound Site (33Ro19): A Lithic Analysis of Diagnostic Artifacts from the Gerald Parker Collection*

Ohio's Gartner Village and Mound site (33Ro19) is known as a Fort Ancient Aspect type-site for Baum Phase ceramics. Lithic artifact descriptions by both William C. Mills and James B. Griffin, based on the Ohio Historical Society's collection, emphasized triangular-shaped hafted bifaces. However, Mills' and Griffin's discussions predated modern typological understanding. Lithic artifacts from the Gerald Parker Collection emphasize a more multi-cultural nature for the site. The diversity of diagnostic lithic artifacts and raw materials spans the entire chronological range of the Scioto Tradition, and merits the site's inclusion to the National Register of Historic Places.

**Trunzo, Jennifer (Brown University)**

[222] *Propaganda and Consumerism: Becoming American During the Revolutionary War in SE Connecticut*

This paper will use the ceramics recovered from a small eighteenth-century farming community that was found on the Lake of Isles property in North Stonington, Connecticut to discuss the impact of American Revolutionary Period propaganda on consumer patterns. It proposes that American patriots bought fewer British imported ceramics during the Revolution and that this pattern of consumption interruption may be seen as marker of willing participation in the boycott programs that the Colonies instituted against British goods. Lastly, it suggests ways to use the ceramic wares that replaced imported goods to identify participation in the "buy-local"/"buy-American" movement of the times.

**Tryon, Christian (Smithsonian Institution/George Washington University) and Potts, Rick (Smithsonian Institution)**

[197] *Approaches for Understanding Flake Production in the African Acheulian*

We examine methods of flake production practiced by Middle Pleistocene hominins in eastern Africa and factors that affect artifact form and reduction mode such as raw material type and form. The dataset includes excavated assemblages from Member 11 of the Olorgesailie Formation, Kenya, that date to ~660,000-600,000 years ago but which lack typical Acheulian tools such as handaxes or cleavers. Our analyses complement studies of shape differences

among Acheulian bifaces. They also allow us to begin to address variation in flake production seen at Oldowan, Acheulian, and Middle Stone Age sites, and to reconcile different analytical approaches presently applied to each.

**Tryon, Christian [59]** *see Haradon, Catherine*

**Tsai, Howard (Museum of Anthropology, University of Michigan)**

[95] *Analysis of Adobe Bricks from Farfán, a Chimú Administrative Center in the Jequetepeque Valley, Perú*

This paper presents the analysis of sun-dried mudbricks from the Late Intermediate Period (AD 1000 - 1400) site of Farfán, Perú. I contrast the Chimú method of wall construction and brick variability, as documented at Farfán, with Moche period (AD 200 - 700) constructions. The Farfán data demonstrate the difference in manufacture, construction, and possibly labor organization, between the Early (200 BC - AD 600) and Late Intermediate Period.

**Tsesmeli, Evangelia (Southern Methodist University)**

[204] *Compositional Analysis of Adobe Construction Material at the Chaves-Hummingbird Site, NM*

The northern and eastern room blocks at Chaves-Hummingbird, NM exhibit significant differences in the architectural layout and scale of domestic and public spaces. Variation in construction techniques (adobe vs. masonry) and technological styles (adobe mixtures, foundations) may point to the presence of possible migrant groups. One line of inquiry into such potential migration at the settlement during the Pueblo IV period is the examination of the building techniques and construction material of its room blocks. The paper will address the results of the adobe composition using XRD analysis, and other tests that evaluate its durability and strength.

**Tsosie, Neomie (Northern Arizona University)**

[165] *Ceramics of White House Pueblo*

The study of exchange systems within small-scale prehistoric societies remains an important theme in Southwest American archaeology. The National Park Service-Canyon de Chelly Office recently contracted ceramic analysts from Northern Arizona University to conduct a study of archaeological remains from White House Ruin now managed by the American Museum of Natural History. This paper presents the results of this recent study which reveals information related to greater patterns of trade and cultural interaction that occurred at White House Ruin and within the greater Chinle Valley Region of Arizona.

**Tuck, Anthony (Tufts University)**

[188] *Poggio Civitate and the Early Urban Landscape of Central Italy*

Subsequent habitation around most Etruscan cities usually obscures the earliest stages of the urban landscape in Etruria. However, the site of Poggio Civitate preserves some of the earliest known evidence for proto-urban architectural development in central Italy. Development of a single, massive building supersedes a 7th century BCE complex of buildings. This and other recent discoveries allow systematic reanalysis of the site in terms of access from the river, destinations of roadways, and architectural decoration in the city center. These factors help us understand the emerging social and political systems at work in the earliest stages of Etruscan urbanization.

**Tucker, Bryan (University of Florida) and Krigbaum, John (University of Florida)**

[141] *Identifying Variation in Oxygen Isotopes from Human Dentition with Implications for Seasonal Resource Use*

$\delta^{18}\text{O}$  seasonal signals recovered by serial sampling tooth enamel are typically reported in fauna rather than humans. Despite their small size and compact growth bands, human molars also show seasonal variation in  $\delta^{18}\text{O}$  when properly microsampled. This seasonal variation tracks fluctuations in rainfall and ambient temperature despite buffering caused by surface water, body water, and secondary enamel maturation. Serial sampling human molars provides a view of diachronic dietary and environmental change with each sample representing 1-2 months rather than a year or more provided by traditional sampling. Results have prehistoric and methodological implications for future isotopic research.

**Tucker, Tim (Mesoamerican Research Foundation), Montero, Arturo (Mesoamerican Research Foundation), Medina Jaen, Miguel (INAH) and Brady, James (California State University, Los Angeles)**

[29] *La Malinche, Montaña Sagrada, y una Cueva de Uso Ritual*

Matlalcueye, la diosa de la falda azul, es más conocida como La Malinche, montaña sagrada. La importancia ritual de La Malinche se manifiesta a través de sus aguas subterráneas y los manantiales. Por un sitio arqueológico con una calzada hecho de piedras labradas y un relicario grande, una fuente de aguas sale de una cueva artificial. Este lugar se ha cambiado en una cueva de uso ritual y además ha sido un factor hidráulico en tiempos prehispánicos y coloniales.

**Tung, Tiffany A. (Vanderbilt University)**

[10] *The Bioarchaeology of Imperialism*

Given increased collaboration between archaeologists and bioarchaeologists, and the growing inclusion of anthropological theory into bioarchaeology, new studies are showing how bioarchaeological data can address broader anthropological issues. One of these themes includes how empires affect and are affected by its populations, not just in terms of health and disease, but in how state governance can shape the context in which disease, nutritional deprivation, and violence emerges or subsides among factions. Moreover, bioarchaeological studies of the body show the corporeal aspect of personhood, revealing the creation or maintenance of identity and the role of the body in state rituals.

**Tung, Tiffany [211] see Cook, Anita**

**Turkon, Paula (Ithaca College), Parks, Rebekah (Arizona State University) and Nelson, Ben (Arizona State University)**

[178] *Completing the Meal: Integrating Macrobotanical and Faunal Data in the Prehistoric Malpaso Valley, Zacatecas, Mexico*

Although recent research using macrobotanical, food preparation, and consumption artifacts demonstrates that households in the Malpaso Valley were distinguished by the plant foods they consumed, the vessels in which they consumed them, and their food preparation activities, a well-rounded picture of dietary variation requires an examination of faunal remains representative of meat consumption. In order to explore the extent to which food access, preparation, and consumption are representative of social differences, we now integrate faunal data into the analysis, with the expectation that faunal remains, especially artiodactyls, a relatively expensive and restrictable food, would be found primarily in elite residences or feasting contexts.

**Turkon, Paula [158] see Elliott, Michelle**

**Turner, Grace (College of William and Mary)**

[227] *Ship Graffiti as Records of All Manner of Bahamian Shipping*

The Bahamian archipelago covers over 5,000 square miles (8,047km) of the Atlantic Ocean at the northeastern edge of the Caribbean Sea. During the Age of Sail these islands were on major sailing routes. Bahamians developed life ways using their islands' location to their advantage. Wrecking was the predominant seafaring venture. This incorporated a range of suspect activities. Examples of 19th and 20th century ship graffiti are interpreted as archaeological evidence of the significance of shipping through the Bahamas. Documentary records help give a clearer perspective on the nature of this shipping activity.

**Turner, Grace S. [244] see Tinker, Keith**

**Turney, Michael [16] see de Mille, Christy**

**Tuross, Noreen (Harvard University), Erickson, David (Smithsonian Institution), Smith, Bruce (Smithsonian Institution) and Clarke, Andrew (Massey University)**

[109] *An Early Arrival for Asia: The Origin of the Bottle Gourd in the Americas*

The bottle gourd (*Lagenaria siceraria*), is grown world-wide, although usually not as a food source. Carried by ocean currents or by human transport, the bottle gourd reached the Americas long before the arrival of Europeans, and this multifaceted enigma has been a question in plant domestication timing and origins. We report the age, origin, and domesticated status of the bottle gourd from rinds found in archaeological contexts ranging in age from 200 to 9,000 yrs BP. Ancient DNA analyses of seven pre-Columbian archaeological specimens indicate an Asian origin, while a single post-contact specimen derives from an African source.

**Tuross, Noreen [109]** see Warinner, Christina; [220] see Diaz, David

**Turq, Alain [76]** see Schurmans, Utsav

**Twiss, Kathryn (Stony Brook University), Martin, Louise (UCL) and Russell, Nerissa (Cornell University)**

[28] *Cornucopia: The Cattle Horns of Çatalhöyük*

Studies of cattle horn cores often isolate their zoological aspects (wild/domestic, sexing, and breed distinctions) from their role in architecture and ritual. Because horns were often treated specially at Neolithic Çatalhöyük in Turkey, we have a relatively large assemblage of fairly complete cattle horn cores, as well as abundant contextual information. This permits a more holistic approach that considers depositional context, varying treatments, morphological attributes, and their very identity as animal body parts. We argue that the uses of horn cores influence the ancient attitude toward cattle.

**Twiss, Kathryn [178]** see Bogaard, Amy; [215] see Russell, Nerissa

**Tykot, Robert [103]** see Bowers, Robert; [138] see Beyer, Lisa; [152] see Adolfo, Gil; [242] see Kelly, Jennifer; [70] see Pateman, Michael; [73] Discussant; [10] see Berryman, Carrie Anne; [194] see Lanehart, Rheta E.

**Tykot, Robert H. (University of South Florida), Lugliè, Carlo (Università di Cagliari), Setzer, Teddi J. (University of South Florida), Tanda, Giuseppa (Università di Cagliari) and Webb, Ronald W. (Temple University)**

[30] *Surveying and Excavating a Prehistoric Obsidian Workshop in Sardinia (Italy): Studying the Chaîne Opératoire*

Survey and excavation has been conducted at the large obsidian workshop site of Sennixeddu, adjacent to the SC geological source on Monte Arci. Artifacts from this source are found throughout Sardinia, and also in Corsica, mainland Italy and southern France, dating as early as the 6th millennium BC. Systematic survey, along with excavations in different areas, has produced information on the organization and intensity of obsidian production during the Neolithic period. More than 100,000 obsidian artifacts have been recovered and are being studied and integrated with research on obsidian technology, trade and use, and other parts of the chaîne opératoire.

**Tyler, James (University of Arkansas) and Wrobel, Gabriel (University of Mississippi)**

[238] *Excavations of a Mortuary Sample from the Caves Branch Rock Shelter*

The 2005 excavations conducted by the Western Belize Regional Cave Project (WBRCP) focused on the Caves Branch Rock Shelter. Analysis of the associated cultural material suggests the site was used as a mortuary location by a rural agrarian population around the time of the Protoclassic period. Based on the age and sex distribution it appears to contain a skeletal sample not biased by cultural rules governing mortuary practices in urban centers. The CBRS provides a unique opportunity to obtain bioanthropological data from an ancient Maya population based on a more representative mortality sample.

**Ubelaker, Douglas H. (Smithsonian Institution) and Ross, Ann H. (North Carolina State University)**

[84] *An Evaluation of Ancient Population Relationships in the Caribbean from the Perspective of Traditional Craniometrics*

Traditional craniometric methodology is employed to assess morphological distances among Caribbean samples and to compare them with other samples from the Americas. Pre-contact samples included in the study originate from Cuba, Hispaniola, Puerto Rico and Jamaica within the Caribbean. Comparative samples are available from Florida, Mexico, Panama, Colombia, Venezuela and Ecuador. The research reported here is part of a larger effort to construct a database documenting patterns of human cranial variation within Latin America prior to European contact.

**Ubelaker, Douglas H. [84]** see Ross, Ann H.

**Uceda, Santiago [115]** see Hanratty, Colleen



**Underhill, Anne [103]** *see Bowers, Robert*

**Underhill, Anne P. [194]** *see Lanehart, Rheta E.*

**Upton, Samuel [69]** *see Fassero, Anthony*

**Ur, Jason (Harvard University)**

[220] *Emergent Landscapes of Intensification in Early Bronze Age Northern Mesopotamia*

The model of early urban societies as states with powerful rulers and centralized economies was based mostly on data from early excavations in ancient Mesopotamia, which focused on elite contexts. This model has been found to fit poorly elsewhere, and now recent research in northern Mesopotamia suggests that the centralized model might be inappropriate there as well. This paper will review the landscape evidence for intensification around Early Bronze Age cities in northeastern Syria. Archaeological and cuneiform data suggest that elites were unconcerned with agricultural production beyond their own household needs, and that intensification was an emergent phenomenon.

**Urban, Patricia (Kenyon College)**

[234] *A Community with Potters, or a Potters' Commune?: Classic Period Pottery Making at an Agrestic Center of Las Canoas*

When excavations began in 2000, Las Canoas appeared to be a sub-regional administrative center for elites from the Naco Valley to the north. Work demonstrated that Canoas' residents produced a category of ceramics widely distributed along the Chamelecon and Cacaupala rivers. With time, extent and placement of production changed throughout the site; at the end, even the Main Plaza, surrounded by monumental buildings, was just another place for craft working, not an elite residential/ritual space. Thus, the entire site became a potters' community, not simply a place where a few made ceramics while others had different or superior occupations.

**Urquhart, Gerald [194]** *see Lovis, William*

**Uruñuela, Gabriela (Universidad de las Américas), Plunket, Patricia (Universidad de las Américas, Puebla) and Robles, Amparo (Universidad de las Américas, Puebla)**

[140] *In Marquina's Footsteps: New Light from the Tunnels of the Great Pyramid of Cholula*

In the 1930s, Ignacio Marquina initiated a long-term project involving the excavation of more than 8 km of tunnels to explore the Great Pyramid of Cholula. Information from these tunnels was never published in detail nor is it available in archaeological archives. By cleaning exposed profiles, recovering carbon samples, and remapping substructures with a total station, to date we have registered more than 2 km, allowing us to refine Marquina's plan of the first construction, identify two unreported building phases, and date the early substructures. We present an overview with new architectural interpretations.

**Uruñuela, Gabriela [140]** *see Plunket, Patricia*

**Usher, Bethany (SUNY Potsdam)**

[141] *Spatial and Social Patterning in Medieval Scandinavian Cemeteries*

Archaeologists use the spatial arrangement of cemeteries to support inferences about social structure in past populations. This poster presents evidence of the different, and often conflicting, ways that horizontal and vertical aspects of social position have been represented in medieval Scandinavian cemeteries. There is written and archaeological evidence that the position of individual graves was influenced by age, sex, land ownership, home location within the parish, and location of other family members; and that the relative importance of each of these variables changed over time. The excavated cemeteries of Tirup (Denmark) and Westerhus (Norway) are examined in light of these patterns.

**Vail, Gabrielle (New College of Florida)**

[236] *Murals from Santa Rita Corozal and the Mixteca-Puebla Tradition*

Postclassic murals found at Santa Rita Corozal (no longer extant) have long been linked to the Mixteca-Puebla tradition stemming from the Mexican highlands. This paper examines iconographic, hieroglyphic, and stylistic elements present in the murals in light of archaeological data from Santa Rita and Caribbean coastal sites that suggest long-distance contacts with other regions of Mesoamerica. Also to be considered is what the presence of "foreign" deities in the

Santa Rita murals and modeled on incensarios from sites like Mayapan reveal about Late Postclassic Yucatecan religion and rituals and how they were impacted by beliefs from highland Mexico.

[37] *Discussant*

**Valcarcel Rojas, Roberto [16]** *see* Martín-Torres, Marcos

**Valcárcel-Rojas, Roberto (Departamento Centro Oriental de Arqueología) and Cooper, Jago**

[112] *Adornos Corporales de Metal en dos Sitios Arqueológicos Aborígenes del Noriente de Cuba*

El uso de piezas metálicas entre aborígenes de las Antillas fue muy limitado. El mayor número de tales artefactos reportados para el área antillana ha sido en la isla de Cuba. Este trabajo presenta los resultados del estudio tipológico de las piezas metálicas cubanas, así como del análisis de su composición mediante técnicas que incluyen Fluorescencia de Rayos X y Microscopio Electrónico. Se establece la presencia de objetos de adorno indígena no antillano, sino probablemente del área colombiana, elaborados en una aleación de cobre, oro y plata. También se reportan, en número mucho mayor, piezas fabricadas usando latón europeo.

**Valdes, Yuri (E.N.A.H.) and Gonzalez, Tamara (E.N.A.H.)**

[27] *Life Histories and Ceramic Objects: Ritual Ethnoarchaeology in Central Mexico*

Recent ethnoarchaeological investigations focus on reevaluating the role that objects and people play, presenting themselves flexible and leading social lives describable by biographical narratives. Objects are active agents in the formation of communities and identities with multiple messages whose meanings are constantly negotiated. Through fieldwork made on ritual specialists of the Central Mexican Altiplano we'll approximate to strategies in which ritual objects are experienced in their stages of use by varied audiences and significant ways by which these actively constitute human-object relationships. An awareness of contemporary rituals helps to re(interpret) the products of the archaeological record and non-tangible culture.

**Valdéz, Juan Antonio (Universidad de San Carlos, Guatemala)**

[208] *La Figura Humana en el Arte Maya del Preclásico*

Hallazgos recientes han dejado al descubierto que los mayas pintaron y esculpieron figuras humanas desde tiempos tan antiguos que se remontan al inicio del Preclásico Tardío, que demuestran un desarrollo vital en el conocimiento de las técnicas de trabajo. Las imágenes fueron representadas para apoyar la propaganda oficial de la clase dirigente; una manera estratégica para enviar mensajes visuales a los pobladores de las ciudades mayas. Sitios del norte de Petén y del altiplano de Guatemala evidencian el alto grado de desarrollo alcanzado hacia la complejidad de la civilización maya a través de los siglos.

**Valdez, Jr., Fred (University of Texas-Austin) [120]** *Discussant*; [246] *Discussant*

**Valla, Clement (Private Company)**

[237] *Modeling Ancient Copan: 3D Computer Reconstructions of Type 4 Sites in Comedero and El Bosque*

This presentation describes the process and shows results of creating Computer-aided-design (CAD) models of Type 4 sites in Copan. The most complete work has been done on Group 9J-5, in El Comedero, northwest of the Acropolis. The PAPAC director and cartographer provided archeological plans, sections, and site maps, and the raw data were then assembled in three dimensions. This produced a reconstruction of the site as it might have looked 1200 years ago. This 3D model highlights issues of conservation and serves as a basis for creating drawings, images, and animations allowing for the site to be studied in new ways.

**Valle, Judith [190]** *see* Mongelluzzo, Ryan

**Van Broekhoven, Laura N K [139]** *see* Geurds, Alexander

**Van Buren, Mary (Colorado State University)**

[122] *Local Knowledge and Secondary Sources: Key Resources for Latin American Historical Archaeology*

Latin American historical archaeology occurs in the context of a distinct colonial experience, the

legacy of which, especially in areas with large indigenous populations, is continuity in rural life. The implications of this are twofold. First, research is framed by the concept of colonialism, the understanding of which has been developed in secondary sources based on documentary evidence. Second, the experience of contemporary populations in the research locale is critical to the interpretation of the material record. This paper examines archaeological practice with regard to these sources of information using the study of small-scale smelting technology in southern Bolivia.

[69] *see Cohen, Claire*

**van der Elst, Judith [148]** *see Arias, Veronica*

**van der Leeuw, Sander (Arizona State University) [192]** *Discussant*; [26] *Discussant*

**van der Merwe, Nikolaas [132]** *see Allegretto, Kimberly*

**Van Dyke, Ruth (Colorado College)**

[54] *Chaco Reloaded: Memory and Identity on the Post-Chacoan Landscape*

During the AD 11th century on the Colorado Plateau, Chaco Canyon was the social, political, and ritual center of the Ancestral Pueblo world. Chacoans invoked the more distant past as one means of legitimating authority. After the collapse of the canyon as a center place in the 12th century, the memory of Chaco figured prominently in the reconstruction of community. Chaco Canyon was referenced, time and again, by the builders of Pueblo III period communities in the northern San Juan and in the Cibola area, as these fragmented groups struggled to cope with social upheaval and establish new identities.

**Van Gijn, Annelou (Leiden University)**

[16] *An Integral Approach Towards Use Wear Studies: Technological Choices and Cultural Traditions*

Most usewear analyses of prehistoric assemblages are directed at one category of material culture, usually flint or chert. Recent studies have shown that interpretable traces of use also develop on tools made of bone, shell, coral or sherds. By studying the function of these different tools, we can establish the technological and functional relationships between them, leading to a reconstruct of toolkits. The choice of tool is very much a cultural one and is part and parcel of the cultural tradition. This approach is in its infancy in the Caribbean area, but preliminary data elucidating the possibilities will be presented.

[16] *see Kelly, Harold*

**Van Gijseghe, Hendrik (Universite de Montreal) and Vaughn, Kevin (Purdue University)**

[212] *Continuity and Change in Paracas and Early Nasca Household Organization*

We examine excavation and survey data from the Southern Nasca Region to evaluate aspects of household and community organization during the Early Horizon-Early Intermediate Period transition. While the transition between Paracas and Early Nasca is often considered gradual and seamless, household data indicate that profound changes in community and regional social organization may have occurred at the onset of Nasca society. We argue that changes in domestic architecture and household assemblages are reflective of the processes that mark the Paracas-Nasca transition and that they parallel the better-documented technological innovations used to define Nasca society.

[219] *see Vaughn, Kevin*

**Van Hove, Doortje [42]** *see Lazrus, Paula*

**Van Nest, Julieann [96]** *see Asch, David L.*

**Van Peer, Philip (Katholieke Universiteit Leuven) and Wurz, Sarah (University of Stellenbosch)**

[197] *The Chaîne Opératoire Concept in Middle Palaeolithic Lithic Studies: Some Problems and Solutions*

The chaîne approach to lithic analysis, understood as the set of procedures to analyze the dynamics of lithic productions, stems from powerful theoretical concept. In its epistemological foundation, it is a tool that can provide coherent, objective data about sequences of past events. Yet, in present practice the approach is sometimes reduced to an alternative typological system, suffering from over-formalization and lack of classification criteria. Supported by

tenuous assumptions, it leads to unwarranted interpretations. The paper presents an example of an alternative methodological implementation of the underlying principles and of the interpretations such might lead to.

**Van Peer, Philip [98]** *see Wurz, Sarah*

**Van Vlack, Katleen [2]** *see Stoffle, Richard*

**VanderVeen, James (Indiana University)**

[134] *Archaeology of the Accessible: How Political and Economic Development Shape Caribbean Research*

The modern political and economic contexts of archaeological research have a considerable impact on the collection and interpretation of ancient material culture. The presence or absence of data is influenced by the availability of money, the desirability of sites, and the ease of political access to both. Entire theories about the past, however, are assembled from evidence for which the context of the source is rarely questioned. This paper discusses how accepted archaeological paradigms about the movement of pre-Hispanic peoples across the Caribbean may be biased due to modern political situations.

**VanDerwarker, Amber (Muhlenberg College)**

[178] *Integrating Plant and Animal Data with Correspondence Analysis: A Case Study from Formative La Joya in Southern Veracruz, Mexico*

This paper represents a quantitative exercise in integrating zooarchaeological and archaeobotanical data. More specifically, I consider the applicability/validity of using correspondence analysis towards this end. In so doing, I examine the subsistence evidence from La Joya, a sizable village in the Sierra de los Tuxtlas that spans the Formative period. I combine analyses of plant and animal data to explore changes in farming and hunting strategies as they relate to political development and volcanic eruptions. From this case study, I argue that correspondence analysis is well-suited for exploring the covariance of zooarchaeological and archaeobotanical data.

[136] *Discussant*; [178] *see Peres, Tanya M.*

**Vanhaeren, Marian**

[59] *The Function of Personal Ornaments in the Middle Stone Age and the Upper Palaeolithic*

This paper focuses on the functions personal ornaments have in human societies and on the methods we may use to understand the role beadwork played in the earliest symbolic cultures. A review of the earliest beads from Africa and Europe suggests that the reasons that stimulated creation of beadwork traditions in these areas were different. Main function of the earliest African beadworks seems that of circulating in an exchange system to reinforce reciprocity networks ensuring the survival of hunter-gatherer groups in times of stress. In Europe beads were used to strengthen affiliation to a group and visualize social roles.

**VanNess, Margaret (US Fish and Wildlife Service)**

[225] *3 x 5 Note Cards to Notebook Computers: What We Do with What We Collect*

The collection, organization, manipulation and use of archaeological information has gone through just a few changes in the last thirty years. The thrill of color-coded note cards gave way to punch card sorting systems, computers larger than most SUVs, and eventually to dazzlingly powerful handheld systems. We've toggled between the collect-it-all-because-it's-all-good philosophy to sampling strategies that were far more complex and attention grabbing than the culture we were suppose to be studying. This paper is a review of these changes from the point of view of a contractor turned SHPO staff turned Federal employee.

**Vargas, Marco and Bravo, Elizabeth**

[151] *La Zona Intermedia: Ecuador y el Estado Pre-Hispánico*

El Ecuador se presenta como una de las zonas con gran presencia de asentamiento pre-Hispánicos en el área intermedia. En este marco la zona nor-andina ofrece interesante evidencia material de grandes diferenciaciones de clase que infieren la presencia de una burocracia estatal. Cúales son las relaciones internas de esta sociedad que permitieron la evolución de dicha estructura? Como se desarrolló esta sociedad enmarcado por otros estados dentro del área Andina? Y finalmente cuál es la relación de este pasado con la actual identidad de un estado Ecuatoriano a la sombra de las naciones-estados vecinas?

Vargiu, Rita [16] *see Coppa, Alfredo*

**Vargo, Barbara (AMEC Earth & Environmental, Inc.), Kelly, Katherine (Evergreen State College) and Croes, Dale (South Puget Sound Community College/Washington State University)**

[36] *A Reassessment of Stone Projectile Point Types in the Puget Sound, Pacific Northwest Coast*

The morphology of stone projectile points can be seen as the product of the interaction of stylistic, functional and technical elements. Although lithic assemblages have been studied in the Northwest for over fifty years, a unified projectile point typology for the region does not exist. An essential element to this typology is the ability to identify individual types and regional distribution, based on visual, technical and raw material components. This paper will demonstrate that a reassessment of projectile point types in the Puget Sound, Pacific Northwest Coast is essential to address issues of resource utilization, range of variability, chronology and cultural interaction.

**Varien, Mark [7]** *see Kohler, Timothy*

**Varney, Tamara [16]** *see de Mille, Christy*

**Vasquez, Josefina (Pontificia Universidad Católica del Ecuador)**

[77] *The Organization of Space of the Pasto Chieftdom in Northern Ecuador*

An important Pasto Chieftdom settled the Northern Ecuadorian border, specifically in the area around the modern town of Chilmá Bajo. Manifestation of architecture and pottery of these groups spread around Popayán and Nariño (Colombia), and Carchi (Ecuador). The local landscape of a Pasto settlement represents a complex of bohíos (circular houses) and sunken plazas enclosed by conical stone columns, walkways, and agricultural fields for apparent cultivation of coca. Here we present information from current field work that includes surveying and mapping aimed to the reconstruction of site layout and local spatial organization.

**Vastokas, Joan (Trent University) [241]** *Discussant*

**Vaughn, Kevin (Purdue University) and van Gijseghem, Hendrik (Universite de Montreal)**

[219] *A Compositional Perspective on the Origins of the "Nasca Cult" at Cahuachi*

In this paper, we present recent neutron activation data to argue that the "Cahuachi cult" in Early Nasca actually began earlier in the "proto-Nasca" phase of Nasca 1. NAA data demonstrate that Nasca 1 blackwares are compositionally homogeneous and consistent with the chemical composition of Early Nasca polychromes whose source has been recently traced to near the ceremonial center Cahuachi. This compositional homogeneity in Nasca 1 blackwares contrasts with other wares during the Formative and suggests centralized production, widespread movement of this new and innovative ceramic type, and foreshadows what was to take place in the EIP.

**Vaughn, Kevin [212]** *see Van Gijseghem, Hendrik*

**Vaughn, Sallie (East Carolina University)**

[25] *The Influence of Trading Paths on Late Classic Maya Settlement Locations: An Example from Northwestern Belize*

The Ancient Maya were a complex civilization known to employ extensive trade networks connecting cities and settlements throughout the region. These networks were used to carry information, resources, trade goods, and served as pedestrian pathways. During the population explosion of the Late Classic, these networks played a permissive role in the dispersion of people across the landscape. This project identifies one such path between La Milpa and Dos Hombres, two ancient Maya cities in present day northwestern Belize. This pathway is examined for its influence on settlement placement and distribution during the intra-urban decentralization of the Late Classic period.

**Vega-Centeno, Rafael [214]** *Discussant*

**Veit, Richard [229]** *see Lattanzi, Gregory*

**Velásquez, Veronica (INAH)**[224] *Historic Components at La Playa*

This paper presents the results of investigations within three historic period occupations at La Playa (Rancho Francés, Rancho Mexicano, and El Oasis), ranging from the late 19th century up to approximately 1960. These data allow us to offer various interpretations regarding the social and economic conditions of small Mexican households within the context of long-term occupation and adaptation at La Playa.

**Velazquez, Adrian (INAH)**[236] *The Specialized Production of Shell Objects in Tenochtitlan*

In the Museo del Templo Mayor, in Mexico City, an experimental archaeology project has been carried out since 1987. One of its main objectives is the knowledge of the manufacture techniques by which the shell objects of ancient Mexico were made. This is accomplished analyzing the work traces produced by different techniques and tools, and comparing them with the archaeological objects. In this work the knowledge of the specific techniques employed to manufacture the shell objects found in the offerings of the Great Temple of Tenochtitlan, is used to discuss different aspects of its specialized production.

**Velazquez, Vacilio [65]** see Guerrero-Murillo, Narcizo

**Véliz, Vito (Asociación Copán-DIPA)**[210] *Interpretación Arqueoastronómica del Altar de la Estela D, Copán*

Se ha postulado que el Tzolkin, quizá surgió en algún sitio mesoamericano del paralelo 15, siendo Copán uno de los posibles sitios arqueológicos de su origen. Pero ni en este ni en otros sitios, hay evidencia temprana de esta cuenta del tiempo. No obstante, el altar-Estela D de Copán, presenta indicios de una posible división del año tropical, segregando un periodo de 260 días. Con forma casi-rectangular, sus vértices apuntan hacia los puntos cardinales y la línea que une los vértices este-oeste parece dividir el altar en caras noreste-noroeste y suroeste-sureste. Representando detalladamente ambos, ciclos de productividad y de escasez.

**Vellanoweth, Rene [8]** see Erlandson, Jon

**Venter, Marcie (University of Kentucky)**[140] *Identity and Imperialism: Ceramic Evidence from the Western Tuxtla Frontier*

Documents from 16th Century Mexico indicate that the Aztec tributary of Toztlan was a multi-ethnic, bilingual community with resident, imperial agents. Advances in the archaeology of identity and boundaries suggest that the elements associated with different ceramic manufacturing steps may reflect dissimilar identities. Some traits are salient and more likely to reflect embedded ethnicity while others are situational and reflect fluid social relations. Elements of ceramic technical styles are examined from the site of Totógal (archaeological Toztlan). Through a close inspection of ceramic elements at Totógal, I evaluate the association between manufacturing steps evident on ceramics and social group affiliation.

**Vento, Frank (State Universities of Pennsylvania-Clarion Campus) and Stahlman, Patricia**[70] *Geomorphology and Geoarchaeological Studies on Vieques Island, Puerto Rico*

Geomorphological and geoarchaeological studies were conducted on the Island of Vieques as part of the archaeological studies completed by R. Christopher Goodwin and Associates, Inc. for the U.S. Navy. These studies sought to provide a preliminary assessment of the island geology, associated landforms/soils and their relationship to archaeological site location.

**Verano, John W. [4]** see Sutter, Richard C.

**Verdaasdonk, Jolien S. (University of South Florida) and Wells, E. Christian (University of South Florida)**[230] *Assessing Agricultural Potential and Its Implications for Political Development in Northwest Honduras*

This paper examines the degree to which agricultural surplus correlates with political power in prehispanic farming communities in northwest Honduras. Attributes of soil fertility measured on mollic epipedons in the Palmarejo region, including soil pH, texture, structure, consistency, and PNK levels, are compared to determine which soils are more or less suitable for maize cultivation. These fertility measures, combined with parcel size and distribution, are then used

to infer agricultural potential for different settlement zones. The results reveal a complex mosaic of soilscares variably suited for agriculture, with the largest settlement, Palmarejo, occupying some of the most productive plots.

**Vernay, Rick [97]** *see* *Luhman, Hope*

**Versaggi, Nina (Binghamton University (SUNY)), Hohman, Christopher (Public Archaeology Facility) and Knapp, Timothy (Binghamton University (SUNY))**

[35] *Upland Landscapes: Land Use Strategies on the Allegheny Plateau of New York*  
Upland landscapes are an under-researched component of prehistoric land use. The Herrick Hollow Archaeological District occurs on a divide between the Delaware and Susquehanna Rivers. Excavations discovered seven lithic sites with bifacial reduction debris, yet low incidences of discarded bifacial tools. Flake tools, a low number of features, and minor amounts of food remains indicate short-term activities. Early Woodland "cache blade" production suggests a ritual significance connected to the manufacture of bifaces on this landscape. Late Woodland camps on this remote landscape could signal other forms of land use, such as travel stops, deer-hunting camps, or activities with "non-subsistence" connotations.

**Versteeg, Aad (Stichting Surinaams Museum)**

[90] *Pre-and Post-Columbian Changes in Suriname's Landscapes*

This paper focuses on past landscape changes in Suriname, northern Amazonia. Substantial landscape modifications are suggested by archaeological remains, such as anthropogenic soils (terra preta), artefacts, and constructions. Constructions in coastal wetlands include agricultural fields and associated hydrological systems to supply fresh water and drain excess water, and stream channel diversions. Present vegetation, which including a large percentage of species used by indigenous populations, and large-scale evidence of burning, indicated by expansion of savannas into previously forested areas, further attest to the highly constructed nature of the landscape.

**Vicari, Mary Ann [44]** *see* *Schaaf, Lisa N.*

**Vicent, Juan (Instituto de Historia (CSIC))**

[85] *La "Revolución Neolítica" Revisitada: Reconstruyendo el Materialismo Histórico*

La crítica postprocesual pone de manifiesto la impotencia de los modelos deterministas para dar cuenta de las trayectorias de las sociedades prehistóricas, situando de nuevo la acción individual en la agenda de la Arqueología. Esta crítica suele desembocar en un nuevo determinismo, esta vez de la conciencia, que explica el cambio en las estructuras sociales como resultado de la acción de "modelos de racionalidad" sustantivos (pensamiento primitivo vs. post-primitivo, determinaciones de género, etc.). Aquí proponemos la recuperación de una perspectiva materialista no determinista para dar cuenta de los procesos que denominamos convencionalmente "Revolución Neolítica".

**Vierra, Bradley (Los Alamos National Lab)**

[228] *Coping with Change: Stone Tool Production and Procurement in the Northern Rio Grande Valley, New Mexico*

The Northern Rio Grande has witnessed dramatic changes in the natural and cultural landscape over the last 3000 years. The initial use of agriculture during the Late Archaic (1000 BC-AD 900) marked a shift from earlier settlement organizations. Circa AD 1150-1300 witnessed the expansion of agricultural populations into upland areas previously occupied by hunter-gatherers. Eventually, nomadic Apache groups would move into the region to coexist with the local agriculturalists during the post AD 1500s. This paper explores long-term changes in stone tool production and procurement between foragers and agriculturalists, including the effects of metal tool use on stone tool technology.

**Vila, Emmanuelle [28]** *see* *Piro, Jennifer*

**Villalpando, Elisa (Centro INAH Sonora) [173]** *Discussant*; [224] *see* *Carpenter, John*

**Villamil, Laura [182]** *see* *Sherman, Jason*

**Vina, Raul Oscar [219]** *see* *Cremonte, Maria Beatriz*

Vitousek, Peter [50] *see Ladefoged, Thagn*

**Vitt, Joan (AFIX Tracker / AFIX Technologies)**

[18] *The Formation of a Fingerprint Database for Academic and Archaeological Uses*  
The Automated Fingerprint Identification System (AFIS) is the means by which law enforcement searches for and stores fingerprint information from criminal investigations. AFIX Tracker provides agencies with user-friendly software, access to existing fingerprint records, and the ability to create small, local databases. Recent research into ancient fingerprints and other historical and anthropological applications of fingerprint technology has suggested a need for an ancient or academically orientated database. The implications for research are huge, making AFIX Tracker an essential resource for universities and research institutions.

**Vogel, Melissa (UCLA)**

[116] *The Changing Face of Urban Complexity on the North Coast of Peru*  
The Middle Horizon was a time of great sociopolitical change on the North Coast of Peru. This period has recently received increased attention from archaeologists as new research reveals insights into the events that led to the formation of the most highly centralized pre-Hispanic states. There was a striking transformation in architectural style: large mounds, that had been common for millennia, became rare, while high-walled compounds with restricted access became increasingly common. This comparative study will examine the spatial layouts of several north coast cities dating to this period in order to trace the evidence of these sociopolitical developments diachronically.

[246] *see Cortes Rincon, Marisol*

**von Nagy, Christopher (Sierra College)**

[23] *Understanding the Tabascan Social Landscape: Models and Archaeological Correlates of Community Size and Structure in the Tabasco Coastal Plain, Mexico*

Of many outstanding issues in the archaeology of the Tabasco Coastal plain region of Mexico, the structure of population both within the entire plain and its evolving geomorphic subunits is a problem bearing heavily on models of the nature and historical development of urbanization and polity formation in the region. I examine modern and historical community and household spatial structures in coastal Tabasco and their archaeological correlates against evidence of household dispersion and small site clustering within the survey data set from western Tabasco. Derived models for Tabasco are compared to other Mesoamerican data and population and community models for other deltaic landscapes worldwide.

**Vonarx, A. J. (University of Arizona)**

[93] *Projectile Point Styles, Discard Histories, and the Notion of the Heirloom: A Case Study from Chevelon Ruin*

Many Archaic, Basketmaker, and early Pueblo-style projectile points have been recovered from Pueblo IV deposits at Chevelon. Did the artifact life histories of antique and late Pueblo points differ significantly? Are notions of heirlooms, curation, and ritually-charged objects appropriate for discussion of these items? What characteristics, other than perceived age, could imbue these items with social and ritual value? Depositional contexts, artifact associations, raw material types, and patterns of surface damage to antique and Pueblo IV points are compared to evaluate these issues.

[93] *see Shaw, Margaret*

**Voorhies, Barbara (University of California, Santa Barbara), Moyes, Holley (University at Buffalo) and Kennett, Douglas (University of Oregon, Eugene)**

[9] *A Sacred Rock Quarry and Shrine Complex on Cerro Bernal, Mexico*

An Early Classic Period quarry for extracting large blocks of granodiorite that are suitable for monumental sculptures is located near the southern base of Cerro Bernal alongside a perennial spring and a rock shelter with ritual features. The mountain-spring-quarry-shrine association suggests the formation of a sacred landscape connected with stone procurement during the apogee of Los Horcones, a major socio-political center also on Cerro Bernal.

**Voorhies, Barbara [9] *see Kennett, Douglas J.***

**Voss, Barbara (Stanford University)**

[186] *Engendering Ethnicity: The Overdetermination of Identity*

Gender and sexuality are just as central to the formation and maintenance of ethnic identities as race, nationality, and citizenship. For too long, archaeology has conceptualized identities as



stable categories rather than as social processes. Additionally, many studies mistakenly attempt to isolate specific aspects of identity (such as gender or class or race) without considering the ways that social identities are holistically experienced. The concept, "overdetermination," foregrounds the ways that identities are irreducibly produced through ongoing references to multiple aspects of social life. This point is demonstrated with examples from research at Spanish-colonial and Overseas Chinese sites in California.

**Vranich, Alexei (University of Pennsylvania) and Mattox, Wesley**

[163] *Excavating Plazas*

Excavations of geophysical anomalies confirmed a similar pattern of dense residential remains razed and resurfaced with a gravel floor. This extensive surface was terraced into separate areas, and a system of shallow conduits drained rainwater. Feasts and small scale rituals were held in complex structures spread out within and on the periphery of this surface. This investigation emphasizes the ritual nature of the core of Tiwanaku, the extent of reconstruction during the apogee of the polity, and the feasibility of using geophysical surface and selective excavation to investigate the spaces between monuments.

**Waggoner, James (University of Florida) and Faught, Michael (Panamerican Consultants)**

[242] *Cultural Continuity versus Social Diversity in the Early and Middle Archaic Southeast*

Our understanding of the early cultural chronology of Eastern North America is based largely on Joffre Coe's stratigraphic excavations in the Carolina Piedmont where he concluded continuity of social groups from late Paleo-Indian through Late Archaic. Broad-scale application of this conclusion is not without its problems, however, particularly when considering areas south of the Piedmont, especially Florida. In this paper, we show that discrepancies in terminology, technology, and radiocarbon ages in some areas of Southeast may actually indicate the introduction of new groups of people which created greater social diversity earlier than is usually considered.

**Wagner, Fritz E. [4]** see *Wagner, Ursel*

**Wagner, Ursel (Physik-Department E15, TU-Muenchen), Haeusler, Werner (Physik-Department E15, TU-Muenchen), Riederer, Josef (Rathgen-Forschungslabor, Berlin), Shimada, Izumi (Institute of Anthropology, Southern Illinois University) and Wagner, Fritz E. Wagner (Physik-Department E15, TU-Muenchen)**

[4] *Formative and Middle Sicán Pottery Production in Northern Peru*

This work intends to round off previous studies of pottery making in Northern Peru at the Poma Canal kiln site during the Formative period (1300-700 BC) and at the Huaca Sialupe workshop during the Middle Sicán period (AD 950-1050) by Mössbauer spectroscopy, thin section microscopy and XRD. Large numbers of original sherds, clays, moulds, pieces of pottery kilns and furnace linings were investigated. Additionally, a substantial body of test materials treated in the laboratory was used for comparison with the original specimens. An example is given for this approach to studying continuities and changes in pottery making techniques.

**Waguespack, Nicole (University of Wyoming)**

[100] *Examining the Role of Craft Specialization in Folsom Point Manufacture*

Among foraging peoples, craft specialization tends to emphasize the productive abilities of specific individuals and groups operating under specific technological constraints, often reflecting an economic strategy as opposed to a means of status differentiation. The manufacture of Folsom projectile points provides an ideal case for examining prehistoric hunter-gatherer lithic craft specialization. A model of production specialization linking raw material availability and production risk is developed. Raw material profiles and metric data of projectile points and associated manufacturing debris from the Barger Gulch Folsom site, and other assemblages are examined in relation to the modeled predictions of specialized production.

**Wake, Thomas (The Cotsen Institute of Archaeology at UCLA)**

[231] *Examining Changing Material Cultural Traditions in Bocas del Toro Province, Panama*

This presentation examines two distinct material cultural traditions present in Bocas del Toro Province Panama, the broader Aguas Buenas Tradition and the later Bocas/Chiriqui Tradition, in terms of chronological sequence, settlement systems, and motifs and decoration. Focusing on two recently excavated sites, these two distinct ceramic traditions are compared to examine

shifts and continuities in time, site location, artifacts, and artistic representation to provide a better understanding of past human behavior and social integration in the region.

[231] *see Kay, Michael*

**Wales, Nathan (Truman State University)**

[137] *Hunter-Gatherer Fashion: A Comparative Analysis of Clothing, Tattooing, and Ornamentation*

This research builds on Binford's (2001) study of patterning in environment, subsistence and social organization among hunter-gatherers through the addition of data on clothing and personal ornamentation. These data were collected from both ethnographic description and photographic records. Preliminary analysis reveals several regular patterns in both environmental and social associations of different forms of clothing, tattooing, scarification, and other ornamentation. Variability in these associations and the implications for patterning in the archaeological record are both explored.

**Walicka-Zeh, Renata [169] *see MacDonald, Kevin***

**Walker, Caitlin (University of New Hampshire)**

[48] *Structure 63 and Las Plumas; Connecting Late Classic Components at San Bartolo Through Ceramic Analysis*

Structure 63 at San Bartolo, located near the site's Main Plaza and ceremonial center, was witness to large-scale, ritual deposition of broken ceramic material during the Late and Terminal Classic. A nearby elite residential structure, Las Plumas, also saw heavy use during the Late Classic period. These two contexts provide the bulk of data on the Late Classic occupation at San Bartolo to date. Availability of ceramic material from both structures allows for investigation of the possibility of a connection between ritual activity at Structure 63 and the residents of Las Plumas.

**Walker, Caroline (York University, Toronto)**

[229] *Artefacts/Tools and Texts: Looking for the Nodes*

The chemical seriation model for copper-based artefacts offers archaeologists a new relative dating method for attacking chronological problems, but it has not been used for regional studies — yet. Typologies derived from archaeometric data provide new lines of evidence, in combination with traditional attribute-based typologies. Principal components, cluster analysis and GIS are used to propose chemical typologies, evidence to back up -- or not -- two theories about the diffusion of trade goods into the Northeast. Did fragments of "Basque kettles" from Acadia reach Ontario? Were the 17th century Northern European kettles found in Ontario supplied by French traders, from Quebec?

**Walker, Chet [22] *see Schultz, T. Clay***

**Walker, Jeff (Caribbean National Forest)**

[145] *Lithics from the Tibes Ceremonial Site, Ponce Puerto Rico: Analysis of the Stone Artifacts from the 1996-1999 Field Seasons*

The lithic artifacts were analyzed from the 1996-1999 excavations at Tibes Ceremonial Site, PO-1, a site with multiple stone-lined plazas in Ponce, Puerto Rico. The analysis considers the origins of the lithic raw materials, lithic technologies employed, and post-production damage and use-wear. The variation in the stone tool types, debitage and use-wear from these functionally diverse areas identified through remote sensing is explored.

**Walker, Jeff (USDA FS Caribbean National Forest) [126] *Discussant*; [176] *see Riefkohl, Priscilla***

**Walker, John (University of Pennsylvania Museum)**

[220] *A Comparative Study of Landscape Capital in the Bolivian Amazon*

Around the world, farmers invest their labor in improvements such as canals, causeways, and raised fields, creating what Brookfield calls "landscape capital." These landscapes often require organized action in order to use and maintain them. It is at this point that ethnographic and historical research on "common-pool resources" becomes relevant. Describing local political institutions that manage common-pool resources, this research has shown that successful management is associated with institutions that have several key attributes. In two separate examples from the pre-Columbian Bolivian Amazon, this paper presents agricultural landscapes

as a reflection of the local institutions that managed and governed them.

**Walker, Renee B. (SUNY College at Oneonta) and Hohenbach, Kandace (University of Tennessee)**

[178] *Investigations of Paleoethnobotanical and Zooarchaeological Data from Dust Cave, Alabama*

The site of Dust Cave in northwestern Alabama provides a rare opportunity to utilize paleoethnobotanical and zooarchaeological data collected from the same contexts that span the Terminal Pleistocene and early Holocene. Investigations of subsistence strategies are made more substantive by being able to combine both data sets in quantitative analyses. Specifically, our research examines the changes in subsistence that occurred between 10,900 cal. BC and 5,800 cal. BC and the extent to which such changes reflect larger environmental shifts. We also explore how such changes in subsistence may have affected the use of Dust Cave by early foraging groups.

**Walker, William (New Mexico State University)**

[54] *Oral Tradition is a Dead Thing*

Despite its supernatural beings, and magical events, oral tradition is a dead thing for most archaeologists. As commonly conceived there is no materiality in oral tradition. Oral tradition has no action of its own; it is a thing of ideas that exists independently of people's activities. Oral tradition needs some action to bring it life in the study of social change. History making is more than speaking about migrations, farming, and fighting. We need to reconceptualize oral tradition in terms human practices. Then we can ask what traces of oral traditioning characterize artifact variability? What characteristics of these artifacts contribute to the performance of oral traditioning? How do the practices of oral traditioning contribute to archaeological site formation processes? As practice, oral traditioning contributes to the making of history (both remembering and forgetting) not simply its inaccurate recording. It is the migrating, farming, and fighting. To illustrate oral tradition as a living thing I explore of its role in the history of the pueblo cultures of the American southwest.

[93] *Discussant*

**Wallace, Antoinette (St. Augustine Archaeological Association) and Halbirt, Carl (St. Augustine City Archaeologist)**

[6] *The City of St. Augustine's Archaeology Program: Managing Cultural Resources in the Nation's Oldest City*

In 1986, the City of St. Augustine adopted an Archaeology Preservation Ordinance to protect its unique cultural heritage from rampant urban development. During the ensuing twenty years, more than 350 projects have been undertaken. What makes the ordinance unique is that all development projects involving ground penetrating activities are evaluated for their potential impact to cultural remains, on both private and public properties. This presentation focuses on the procedures employed by the City in its evaluation process, the benefit the program has on advancing our understanding of St. Augustine's cultural heritage, and the impact it has on public education and community involvement.

**Waller, Joseph (PAL/UConn)**

[203] *The Geochemistry of Southern New England Soapstone*

Wave Length Dispersive X-Ray Fluorescence is providing data on major compound and trace element composition for selected soapstone outcrops in Connecticut, Massachusetts, and Rhode Island. Soapstone, first utilized by Native Americans during the Terminal Archaic Period, was quarried for millennia for use in vessel, bead, pendant and later smoking pipe manufacture. It is anticipated that geochemical data will provide sufficient information to permit the association of soapstone artifacts, derived from archaeological contexts, to specific source areas. This presentation will report on the status of a research project investigating the geochemistry of southern New England soapstone.

**Waller, Steven (Rock Art Acoustics)**

[196] *Acoustic Methodologies for Rock Art Studies: Analogies between Techniques for Recording Echoes and Iconography*

Rock-art panels of many diverse cultures are often found in strongly echoing locations. Echo myths around the world reveal ancient beliefs in supernatural causes for echoes. Acoustic methods to document echoes in relation to rock-art can help answer questions about motivations for both the placement and subject matter of rock-art. Methodologies with various

levels of sophistication can be used to document sound reflection, just as various methods can be used to document iconography. Auditory methods include subjective descriptions, binaural stereo recordings for 3D effects, objective digital measurements, and visualization of reflected sounds. Preservation of natural rock-art acoustics is urged.  
<http://www.geocities.com/CapeCanaveral/9461>

**Walling, Stanley (University of Texas at Austin)**

[246] *Chawak But'o'ob, Belize: Prehispanic Suburban Ceremonialism, Demography, and Site Summation*

This paper provides an overview of recent archaeological investigations at Chawak But'o'ob, Belize and considers the implications of research at this ancient farming community for our understanding of small settlement diversity among the Classic-period (AD 250-850) Maya. Issues to be discussed include site and regional demography, evidence for immigration, and Maya ceremonialism outside of urban centers. The author considers the value to Maya studies of the detailed examination of small sites, including those located in what are traditionally considered peripheral environments, such as wetlands and escarpments.

[246] see Bechtel, Kelly; [246] see Hanna, Jonathan

**Wallis, Neill (University of Florida)**

[213] *The Production of Meaning in Swift Creek Iconography*

Archaeologists have suggested that the complicated stamped designs on Woodland period Swift Creek pottery are representations of indigenous ideological and emblematic meanings. While this may indeed be the case, I argue for an inductive approach to the study of designs in order to decipher a structural grammar that informs the rules of representation, thereby giving greater focus to the construction and interplay of tropes by the artists. In addition, I suggest that the production and distribution of carved paddles may be equally involved in complex and continually changing tropic constructions rather than simply evidence of exchange or residential mobility.

**Walsh, Michael R. (Cotsen Institute, UCLA) and Snead, James E. (George Mason )**

[110] *James N. Hill and the Scientific Method: The Win-Win Proposition*

James N. Hill considered the scientific method to be a thing of beauty. His methodical formation of propositions, derived from explicit hypotheses and accompanied by precise test implications, were usually so clearly stated that these often had a deceptively simplistic tone to them. But for Jim, the real benefit of the method was the fail-safe aspect of explicit testing: when properly formulated, failed expectations provide significant insights in themselves. This paper explores Hill's application of the scientific method through examples derived from his work on the Pajarito Plateau, New Mexico.

**Wandsnider, LuAnn (University of Nebraska-Lincoln), Hoff, Michael (University of Nebraska-Lincoln), Townsend, Rhys (Clark University) and Rauh, Nicholas (Purdue University)**

[232] *Anatolian Traditions, Anatolian Memories in Roman Rough Cilicia (Southern Turkey)*

Harkening back to the work of V. Gordon Childe and Gordon Willey, archaeologists have recently renewed focus on the circumstances under which particular practices persist and possibly are transformed as different cultures come into contact. This paper looks at this topic as Hellenized Luwian-speaking populations in Anatolia (modern southern Turkey) came under Roman occupation in the early Christian era. Which Luwian traditions persisted? Which did not? How was Luwian heritage remembered? The public display of wealth, treatment of the dead, and other institutionalized practices are considered.

**Wandsnider, LuAnn (University of Nebraska-Lincoln) [188] Discussant**

**Ward, Christine (Geo-Marine, Inc.)**

[226] *Lithic Sources: Procurement Strategies or Perceptions of Landscape?*

The selection of raw materials from which lithic objects were made are traditionally considered from economic perspectives. While economy was likely an overriding factor in selection of most raw materials, there are instances where raw materials were apparently chosen not for economic reasons but for other, more obscure ones. Using an approach developed from theories of landscape and memory, I consider some raw material types from the northern Southwest. I suggest that behind the choices made in selecting some raw materials over others were values placed in the locations of quarries and geographic and cultural directions that those places represented.

**Ward, Robert [43]** *see Crothers, George*

**Ware, Gene [238]** *see Tokovinine, Alexandre*

**Warinner, Christina (Harvard University) and Tuross, Noreen (Harvard University)**

[109] *Corn Bread for Everyone: Putting Mesoamerican Paleodiet Models to the Test*  
Stable isotopes have long been used to reconstruct paleodiet in Mesoamerica. Recently, attention has been focused on the origins of maize agriculture and the apparent temporal discrepancy between macrobotanical evidence and rising human collagen delta 13C values. This paper investigates the role of traditional maize preparation (nixtamalization) in the digestion and incorporation of dietary carbon within a population of large animals under a controlled feeding regime. Current dietary reconstruction models are tested against the results of this study, with special consideration of intra-group variability and implications for the interpretation of maize consumption in the Americas.

**Warner, John (University of Kentucky)**

[116] *New Investigations in Cañoncillo Peru: Rethinking Urban-Rural Distinctions in the Andes*  
Urban space and society have traditionally been approached in terms of a dialectical relationship between city and rural hinterland. In such perspectives, the concentration of economic and political power characterizing urbanization is often uncritically understood as entailing a corollary disempowerment, indeed the creation, of a dependent and decentered hinterland. However, prehistoric urbanism in the Andes cannot be reduced to such urban-rural dichotomies. This paper will argue, through a discussion of new data from Cañoncillo, Peru, that the development of this center did not entail expected power asymmetries that correlate socially or spatially to such simplistic binary oppositions.

**Warner, Walter (Florida State University)**

[153] *Ceramic Technology and Fabric Analysis of Copper Age Pottery on the Great Hungarian Plain*

This paper explores at the Early Copper Age settlements of Vésztő-Bikeri and Körösladány-Bikeri by trying to replicate the process of ceramic manufacture. Using fabric analysis, this paper will distinguish characteristics of the clay body in three areas: 1) firing temperature and conditions; 2) the inclusions; and 3) the clay matrix. Data obtained from the field in 2005 as well as from further study at Florida State University will be compared with actual Copper Age assemblages to test techniques of pottery manufacture, the physical characteristics of the fired product and the materials potters used in ceramic production.

**Warrick, Gary (Wilfrid Laurier University)**

[92] *Mississauga or Mohawk?: Native Peoples, Archaeology and Cultural Affiliation in Southern Ontario, Canada*

In southern Ontario, Native communities claim stewardship of archaeological remains within their territories. However, the cultural affiliation of most archaeological remains within these territories cannot normally be assigned to a specific Native group. Archaeology of early 19th century Davisville, occupied by both Mississaugas and Mohawks, in Brantford, Ontario, shows the problems of assigning cultural affiliation to archaeological remains, even when it is known who occupied a precise geographical location in historical times. This paper examines the concept of cultural affiliation and concludes that it should be abandoned in favour of Native definitions of archaeological stewardship.

**Wasielewski, Amanda [189]** *see Chiarulli, Beverly*

**Watkinson, Charles [146]** *see Galaty, Michael*

**Watson, James (University of Nevada Las Vegas), Barnes, Ethne and Rohn, Art**

[224] *Demography, Disease, and Diet of the Human Skeletal Sample from La Playa*  
Two hundred and seventy-six human burials have been recovered from La Playa; 237 inhumations and 39 cremation burials. Most burials date to the Early Agricultural period and represent the largest early skeletal sample from the Desert West. The sample is evenly distributed between sexes, age groups, and burial orientations. Although limited evidence of infectious disease was present the inhabitants of La Playa appear to have experienced very good health overall. Dental health was poor in comparison however; high rates of caries and

antemortem tooth loss were likely the result of a highly cariogenic diet of local cactus and domesticated corn.

**Watson, Karen (CSUS), Biskowski, Martin (CSUS) and Glascock, Michael (MURR)**

[236] *Patterns of Grinding Tool Exchange in Central Mexico*

The inclusion of maize-grinding tools in long-distance exchange is usefully reflective of existing social, economic, and political circumstances. Earlier work utilizing NAA successfully identified sources of stone utilized in the Teotihuacan Valley and linked decisions about stone use to patterns in craft production and market formation, urbanization, ethnicity. By analyzing additional artifacts recovered in the Mezquital Valley, Hidalgo and near Apizaco, Tlaxcala, this paper investigates evidence for exchange with the Teotihuacan Valley about 70 km away. In addition, this paper compares patterns of local stone usage in these regions with Teotihuacan.

**Watson, Patty Jo (Washington U., St. Louis & U. Montana, Missoula) [47] Discussant**

**Wattenmaker, Patricia (University of Virginia)**

[215] *The Ideological Foundations of Food Exchange and Political Economy in Upper Mesopotamia*

This paper traces patterns of social and economic inequalities within and between settlements from the fifth through the third millennia in Upper Mesopotamia. Analyses of fauna assemblages from centers and rural settlements in southeast Turkey have documented the uneven distribution of animal resources at an early date. Findings from these studies are integrated with other lines of evidence, such as architectural patterns, to situate the animal economy in a broader sociopolitical context. The long-term temporal perspective gained from this approach informs about the ideological underpinnings of food distribution systems in an early urban society.

**Watters, David (Carnegie Museum of Natural History) and Murphy, Reg (National Parks, Antigua)**

[84] *Caribbean Caribbeanists: Strategic Shifts in Collaborative Archaeological Research*

This paper contends that Caribbean nationals will persist in carrying on the expanded role they have assumed during the past twenty-five years in organizing and directing archaeological projects in the region. The accelerated rate of professional training of Caribbean citizens at academic institutions within the Caribbean, elsewhere in the Americas, and in Europe, is a promising signal for the future of the discipline in the archipelago. Caribbean Caribbeanists assuming positions of responsibility in universities, government agencies, museums, and non-governmental organizations are poised to influence, in a dramatic manner, the direction of research projects for the coming decades.

**Watts, Joshua [57] see Lack, Andrew**

**Weathermon, Rick [209] see Reher, Charles**

**Webb, Ronald W. [30] see Tykot, Robert H.**

**Webber, Charles (Northern Arizona University)**

[234] *Craft Production and Power within a Late Classic Agrestic Polity in NW Honduras*

Craft production is not generally attributed much significance in the organization of political economies beyond the metropole. Excavations conducted in 2004 at Site 162, a small Late Classic (AD 600-800) hamlet in the lower Cacaupala valley, NW Honduras suggest that this generalization masks a complex reality. Here there is clear evidence of intense, relatively large-scale fabrication of blades made from imported obsidian. How these artisans figured in polity-wide processes of political centralization focused on the nearby center of El Coyote are reviewed as is the significance of these findings for modeling ancient political economies in agrestic and other settings.

**Webmoor, Timothy (Stanford University)**

[121] *Lessons From the Real: Mediating People-Things in a Symmetrical Archaeology*

How might recent thinking in technoscience studies aid archaeology in (re)discovering its defining relationship to the real? In an attempt to bypass the great divide between representation and reality, which has arguably splintered the discipline of archaeology into disparate, intellectual communities, this paper assesses recent thinking in technoscience which stresses the inherent, symmetrical status of people and things. It is argued that such a

"post-human collective," foregrounding the ontological "mangle" of ideas and objects, may be useful in hurdling the epistemological divide straining the "multivocal debate" of the discipline.

**Webster, David (Penn State University)**

[179] *The Tikal Earthworks: Maya Version of an Altepetl Boundary?*

Recent research makes it increasingly unlikely that the Tikal earthworks represent effective fortifications. An alternative possibility is that they were intended as the physical demarcation of an altepetl-like boundary, but that they were never finished. If so, they were probably designed to enclose a much larger region than previously imagined. New settlement surveys over about 6 sq km have recorded site densities considerably lower than projected by earlier projects, and the population of an altepetl-like polity might also be lower than expected.

[156] *Discussant*; [179] *see Silverstein, Jay*

**Webster, Laurie (University of Arizona), Hays-Gilpin, Kelley (Northern Arizona University) and Schaafsma, Polly (Museum of New Mexico)**

[27] *Snakeskin, Mosaics, and Corn Markings: The Iconography of Tie-dyed Cloth in the Prehispanic Southwest*

Tie-dye and its associated dot-in-square motif appear in the archaeological textile record of the Southwest in Pueblo III and become a primary means of decorating ritual cloth by Pueblo IV. This paper examines the historical development of the technique and links its use in the Southwest and northern Mexico to a pervasive Middle American ideology based on reptiles, water, and fertility. Using evidence from textiles, ceramics, kiva murals, rock art, and linguistics, we trace the evolution and multiple meanings of the motif from a metaphorical referent to the horned serpent, rain, and fertility, to its historic Pueblo identification with maize.

**Weedman, Kathryn (University of South Florida St. Petersburg)**

[247] *Finding Her Own Space: An Ethnoarchaeological Study of Gender in Southern Ethiopia*

Ethnoarchaeological studies of agrarian societies demonstrate the potential visibility of men and women in archaeological domestic contexts. However, ethnoarchaeologists have not tested the visibility of gender in corresponding archaeological sites. During 2001 and 2002, I studied 19 female stone-tool-using hideworkers among the Konso people of southern Ethiopia. My research team also excavated two Konso hideworker households that were occupied in living memory. This paper will present information concerning the gendered use of space and material culture informed by ethnographic interviews and observations and an analysis of the similarities and differences observed at historical sites.

**Weeks, Brent [209] *see Blakeslee, Donald***

**Weets, Jaimin (SUNY Potsdam)**

[141] *Dental Variation in Ireland through Its Prehistory and Early History*

Bioarchaeological study was undertaken to provide data for the examination of hypothetical population intrusions in ancient Ireland. Genetically-controlled human dental traits were used to search for patterns of physical variation in archaeological specimens dating from the Neolithic (ca. 4000-1800 BC) to the Early Christian era (ca. AD 400-1170). A strong trend for decreasing tooth size through time is similar to the reduction found in many other post-Pleistocene populations. A small number of significant differences between principal components variables, and shifting patterns of affinity between time periods, suggests an overall pattern of genetic continuity through time.

**Wegener, Robert M. [185] *see Palacios-Fest, Manuel R.***

**Weinstein, Richard A. [239] *see White, Nancy Marie***

**Weisman, Brent R. (University of South Florida) [214] *Discussant***

**Weisman, Brent R. (University of South Florida) and Collins, Lori (University of South Florida)**

[248] *Mapping Archaeological Sites in the Ten Thousand Islands, Florida: A Landcover Model for Site Location using GPS and GIS*

Development and use of a regionally-specific Geographic Information System (GIS) has allowed researchers in the Ten Thousand Islands region to examine the interactions between environmental variables and cultural site occurrence. High resolution aerial photography, Global

Positioning Systems (GPS), digital elevation modeling and other environmental and cultural variable analysis is employed to define landscape characteristics that influence or have correlation with archaeological site distribution in this region. In this way, researchers can analyze how the landscape can reflect both prehistoric and historic human occupation, enhancing and streamlining archaeological survey efforts in this sometimes inaccessible and inhospitable region.

**Weismantel, Mary (Northwestern University) [21] Discussant**

**Weiss, Lindsay (Columbia University)**

[233] *Toward an Archaeology of Apartheid: The Origins of Segregation in South Africa's First Industrial Mining Community*

This presentation will focus on the first excavation and comparison of pre- and post-segregation assemblages from South Africa's earliest diamond mining community. The project focuses on the earliest Diamond Field communities and their informal consumption patterns, in response to which the first apartheid-style segregated housing was introduced in Kimberley, South Africa. According to archival sources, justification for segregated worker housing by elites and monopolists cited the difficulty of obtaining and securing a stable supply of laborers to work in the empire's diamond mines. Census reports, however, indicate a large African population permanently settled in and around the Diamond Fields. This paper examines this contradiction, by employing a materially informed understanding of what specific social practices the earliest incarnation of the imperially mandated system of segregation was actually responding to.

[11] Discussant

**Welch, Daniel (Geophysical Survey Systems, Inc.)**

[145] *Geophysical Prospection at the Civic-Ceremonial Center of Tibes, Ponce, Puerto Rico*  
Recent advances in geophysical equipment instrumentation and software have allowed high-speed, high-resolution mapping of large sections of sites. A preliminary Electrical Resistivity feasibility study conducted during the 1998 season successfully located midden and packed earth features. Based on the success of that survey, a large percentage of the site of Tibes was mapped during the 2000 season with Magnetic Gradiometry, Electrical Resistivity, and Ground Penetrating Radar. It was hoped that the three different methods would be sensitive to different feature types and a study of data fusion would give a better understanding of the site as a whole. This paper will present the data from the field survey and subsequent ground truth excavations of features.

**Welch, John R. [171] see Colwell-Chanthaphonh, Chip**

**Weller, Errin (University of Colorado, Boulder)**

[230] *Results of Geophysical Exploration from the 2005 Field Season at Ceren, El Salvador*  
During the June-July field season at the Ceren site, the project extensively employed electrical resistivity in five survey fields to search for the western site boundary. Resistivity anomalies were then tested with a core drill to determine the archaeological nature of the signature. The variation in anomalies will be presented. While no structures were confirmed, we did encounter evidence of cornfields planted by the ancient inhabitants on Ceren. The core drill also could not excavate to the 7 meters necessary to confirm or deny two of the strongest anomalies, allowing for a future research opportunity.

**Wells, E. Christian (University of South Florida)**

[185] *Sampling Design and Inferential Bias in Archaeological Soil Chemistry: Cautionary Tales from Honduras*

The ways and extent to which sampling design influences data collection and archaeological inference is a constant concern for archaeologists. Yet, soil chemical studies have been less willing to concede this problem and to explore potential solutions. This paper uses two case studies from prehispanic Honduras to examine how interpretations of soil chemical patterns shift when sampling density changes, and to show that systematic sampling, such as the use of lattice grid matrices, can introduce systematic bias. These findings provide cautionary tales for spatial studies aimed at using soil chemical data to infer activity patterns.

[146] see Davis-Salazar, Karla L.; [230] see Verdaasdonk, Jolien S.; [234] see Novotny, Claire

**Wells, Helen [203] see Tabares, A. Natasha**



**Wells, Joshua (Indiana University - Glenn A. Black Laboratory)**

[104] *What is a Vincennes Phase Assemblage?: Inferring Influences on the Mississippian Inhabitants of West Central Indiana and East Central Illinois*

I will present results describing a series of diagnostic artifacts from some two dozen sites, in Indiana and Illinois, with components attributed to the Vincennes Mississippian phase. This survey is the first study to scrutinize, at regional and site levels, the artifactual foundation of Vincennes' definition as an archaeological culture. Most of the materials in this survey came from overlooked collections and have never been fully analyzed or published. I have combined data from mound centers, towns, hamlets, and multiethnic habitations to provide a model for how standards were caused and variability produced in Vincennes pottery, tools, and decorative objects.

**Wendt, Carl J. (California State Fullerton)**

[86] *A Comparison of Material Assemblages from Early Formative Olmec Households in the San Lorenzo Region*

The increasing amount household archaeology in the Olmec heartland is beginning to allow for comparative material analyses not previously possible in Olmec studies. Excavated materials from a range of San Lorenzo phase (1200-900/850 BC) households in the San Lorenzo region are compared in a preliminary attempt to measure intra-regional differences in household wealth, activities, and consumption patterns. Specifically, I compare quantities of different artifact classes and decoration types at a variety of habitation areas. When combined with data on household architecture, a picture of regional diversity in terms of material assemblages and household patterning emerges.

[136] *Discussant*

**Wenzel, Kristen (Texas Army National Guard)**

[97] *Integrating Cultural Resource Preservation into the Military Mission*

Texas Army National Guard's Cultural Resource program has integrated within the Military Mission of the Texas Army National Guard, facilitating training opportunities while preserving those cultural resources that are part of our Nation's rich heritage. Two factors have been critical in establishing a sustainable program. First, identification and evaluation of cultural resources to prevent unnecessary training restrictions while protecting significant resources via site protection measures reduces conflict between the military mission and preservation regulations. Second, and more importantly, encouraging a process where cultural resources are considered early in the planning for training or construction activities avoids delays and adverse impacts.

**Wernecke, D. Clark (The Gault Project), Collins, Michael B. (Texas Archeological Research Laboratory), Adovasio, James M. (Mercyhurst Archaeological Institute) and Gardner, Sam (The Gault Project)**

[138] *A Tradition Set in Stone: Engraved Stone Objects from the Gault Site, Bell County, TX*

The engraving of portable objects in wood, bone and stone is a practice recognized worldwide dating back perhaps more than 200,000 years. Portable art has been previously recognized in North America by about 8000 years BP. More than 100 engraved chert and limestone objects have been found at the Gault Site in central Texas with proveniences placing them in Early Paleoindian through Archaic contexts. PTM imagery facilitates capture of details in the engraved patterns. The Gault engraved stones are discussed within the context of this North American tradition.

**Wernke, Steven (Vanderbilt University) and Guerra Santander, Ericka (Universidad Nacional de San Agustín)**

[212] *Taking Stock: Houses and Their Propertied Interests in the Colca Valley, Peru*

Andean households made significant investments in their dwellings as markers of status and identity, but wealth was rooted in agro-pastoral holdings beyond the confines of the house. We examine the Andean "house" as both a built structure and a resource-holding collectivity through combined analysis of household dwellings and landholdings in the Colca valley. Qualitative and metric analysis of over 600 late prehispanic houses charts how local elites projected their status through an architectonic idiom. Declarations in colonial censuses from the descendants of these archaeological households indicate significant differences in land wealth and large surplus production capacity among elites.

**Werth, Lindsay [107] see Adams, Karen R.**

**Wesler, Kit (Murray State University)**[240] *Modeling Mississippian as Non-State: A Narrowness of Vision?*

A few scholars have treated Mississippian society, and particularly the polity centered on Cahokia, as a state organization. Most Mississippianists dismiss the idea reflexively, using the (admittedly broad) label of chiefdom instead. Aspects of medieval Europe, Southeast Asian mandala organizations, and retainer burial phenomena worldwide suggest that a broader vision provides intriguing comparisons. I suggest that our models of state and chiefdom do not fully represent the variety and continuum of complex organization in past societies, and that multidimensional models based on archaeological data must be developed for a more appropriate evaluation of complexity in a worldwide perspective.

**Wesson, Cameron (University of Illinois at Chicago)**[91] *Mixed Metaphors: Dynamic Modernities in Southeastern North America*

Colonization of southeastern North America presented a series of challenges to the indigenous peoples of the region. Chief among these impediments was a concerted effort to "civilize" (modernize) these groups. This process was seen as an opportunity to liberate indigenous peoples from the burdens of cultural tradition, to impart to them the gifts of Christianity and capitalism, and ultimately to render them passive to Colonial agendas. Rather than simply accommodating to a European modernity, however, Native Americans reacted dynamically to these forces, creating their own syncretic modernities. This paper examines archaeological and ethnohistorical evidence for these processes among the Creek peoples of the Southeast.

West, Mary [6] *see Steiss, Deborah*Wester, Carlos [115] *see Hanratty, Colleen*Wexler, Jennifer [103] *see Semon, Anna M.***Whallon, Robert (University of Michigan)**[194] *A Heuristic Model for Hunter-Gatherer Spatial Organization*

A number of regularities appear to characterize the spatial organization of band-level, hunter-gatherer societies generally. Variations around these regularities represent accommodations to local topographic, environmental, and demographic factors. A heuristic model is developed to represent these regularities on an ideal, uniform plane. This model proves useful in explaining and predicting a number of observed aspects of spatial organization among both archaeological and ethnographically known hunter-gatherer groups.

Wheeler, Derek [245] *see Bon-Harper, Sara*Wheeler, Ryan [248] *see Collins, Lori D.***Wheeler III, Dean (University of Pittsburgh)**[80] *Agricultural Terraces and Intensive Farming in the Upper Grijalva Basin: How Two Late-Terminal Classic Period Maya Polities Produced Food*

Results are presented from analysis of the data recovered from a full coverage systematic survey in the Upper Grijalva Basin, a Mayan setting in Chiapas, Mexico on the southwest periphery of the Maya lowlands. The research investigates the degree to which elites managed intensive agricultural production on terraces during the Late-Terminal Classic period (AD 650-950). Two neighboring Maya polities are compared that differ from one another in respect to need for agricultural intensification due to differences in the distribution and extent of soils good for farming, the availability of water resources, and other ecological characteristics.

**White, Chantel (Boston University) and Wolff, Nicholas (Boston University)**[201] *Conceptualizing Prehistoric Warfare: Framing a Case Study from Neolithic Thessaly, Greece*

Although frequently overlooked by archaeologists, the question of intergroup violence is a particularly pertinent topic to our understanding of prehistoric cultures. In this paper we establish a preliminary framework for a research project currently being conducted at Boston University examining Neolithic warfare in Thessaly, Greece. Anthropological definitions of warfare are addressed here, as well as potential causes for conflict and ways in which violence, or the threat of violence, may be represented in the archaeological record. This analysis of prehistoric warfare is presented in terms which we hope will be adapted to other regions and periods in the future.

**White, Christine (University of Western Ontario), Dolphin, Alexis (University of Western Ontario), Williams, Jocelyn (University of Western Ontario), Maxwell, Jay (University of Western Ontario) and Matthews, Julianna (London School of Economics)**

[164] *Skeletal Biology of Two Coastal Maya Communities During the Postclassic to Historic Transition: A Preliminary Analysis*

Multiple indicators of juvenile and adult health and diet are used to reconstruct living conditions at the coastal sites of Marco Gonzalez and San Pedro, Belize. Although the small fishing village of San Pedro appears to have experienced greater physiological stress than the larger trade community of Marco Gonzalez, both sites supported more healthy populations than the majority of inland Classic period sites. Although physiological stress may have been buffered by the coastal location, there was a significant childhood disease load throughout their occupation. The causes of inter-site differences may be either socio-economic or temporal.

**White, Christine [236]** *see Spence, Michael*

**White, Christine D. [189]** *see Metcalfe, Jessica Z.*

**White, Daniel M. [194]** *see Taché, Karine*

**White, Esther (Historic Mount Vernon) and Breen, Eleanor (Historic Mount Vernon)**

[13] *"a pretty considerable Distillery...under the Superintendence of Mr. Anderson:" Laborers and Space at George Washington's Distillery*

As George Washington retired from the presidency in 1797 he embarked on a new venture as a distiller. Conceived as a plantation distillery, transforming corn and rye into whiskey, the operation was overseen by the son of Mount Vernon's Scottish plantation manager, and another hired white assistant, while the labor was performed by six African American slaves. The overseers lived in the distillery's loft, the enslaved distillers resided in nearby quarters. Recent archaeological excavations at the site of the distillery revealed much about the interactions of these individuals and their roles operating, managing, and living at this industrial enclave.

**White, James (University of Kentucky)**

[228] *Understanding Forager Sites in Deflated Arid Landscapes*

Archaeological survey in the deflated desert of west-central Nuevo Leon, Mexico produced an unexpected site density covering the Archaic Period. The wealth of data was all from the modern surface where sites experience considerable erosion and data distortion. Given these conditions, the author considered the most fundamental aspects of forager research, including site forms, environmental conditions, and mobility. Condensing ethnographic data and a host of archaeological theories, the author devised a series of diagrams that are useful in understanding the relationship of the environment and lifestyle patterns for the people who created the now distorted sites of deflated environments.

**White, John [62]** *see Hill, Glenn*

**White, Mark [98]** *see Nowell, April*

**White, Nancy Marie (University of South Florida) and Weinstein, Richard A. (Coastal Environments, Inc.)**

[239] *Eight-Thousand Years of Shell Middens on the Northern Coast of the Gulf of Mexico*

Coastal shell middens from south Texas to north Florida date as early as 8000 BP. Most are characterized by brackish-water clams and oysters, with large gastropods (conchs, whelks) in more saline settings. Such aquatic food species show subsistence change/persistence over millennia and the dynamism of coastal landforms. Some coastal fishing-hunting-gathering adaptations continued into late prehistory despite the presence of agricultural chiefdoms inland. Our data can be compared with those from coastal sites farther south (southern Florida, Mexico, Caribbean), where environmental factors and greater distances from the Southeastern U.S. led to different cultural regimes.

**White, Randall (New York University)**

[83] *Approaches and Methods for the Study of Upper Paleolithic Cultural Esthetics*

Newfound interest in the cultural underpinnings of so-called Paleolithic art has resulted in excavations geared to meticulous recovery of previously neglected items of personal adornment. The analysis of complete assemblages of such objects allows a culturally

contextualized understanding of such issues as raw material choices, surface treatments, polishes and lusters. These choices are situated within systems of procurement and exchange that allow an analysis of the social and geographic relations underlying Paleolithic symbolic and esthetic systems. The current analysis focuses on three recently excavated Aurignacian sites from SW France: Abri Castanet, Brassempouy and Isturitz.

**Whitehead, William (Ripon College)**

[109] *Modeling of Diet in the Lake Titicaca Basin Using Isotopic and Paleoethnobotanical Data*

Advances in modeling diet with isotopic and paleoethnobotanical data now allow researchers to move beyond broad generalizations of dietary composition and create dietary systems that can be tested with a variety of tools. Using data from sites around the Lake Titicaca basin, a new mathematical model and program will be presented that can more accurately predict the isotopic fractionation of carbon in human bone collagen. This model is based on stochastic fluctuation, diet composition, and can predict carbon isotopic composition in human collagen through an individual's life.

**Whitehead, William [4]** *see Green, Kelsey*

**Whitford, Lea [2]** *see Zedeno, Maria Nieves*

**Whiting, Josh (Northern Arizona University)**

[99] *Exploring Human Land Use in Great Basin National Park, Nevada*

Human land use patterns in the Great Basin have been a topic of archaeological interest for decades. To document land use in Great Basin National Park, Nevada, I conducted a survey of 40 randomly selected springs. Pedestrian transects were employed to survey land within 200 meters of each spring and 50 lithic samples were collected for provenance analysis. Transect surveys resulted in 30 new sites dating from the middle Archaic to the early twentieth century. Modeling indicates ground slope and water proximity limited human occupation and provenance results indicate prehistoric inhabitants utilized lithic sources in Idaho, Nevada, and Utah.

**Whitley, David**

[126] *Rock Art Site Management and Conservation in Guatemala*

Rock art is an important even if understudied component of the Guatemalan archaeological record. Recognition of the importance of this art and efforts at its study has occurred in the last decade, but significant attempts at conservation and management are just beginning. An initial evaluation of site condition and management problems and prospects was completed at a series of sites in 2005. This revealed certain issues that are typical at rock art sites worldwide and others that are unique. These are reviewed in the context of a substantivist approach to site management.

**Whitman, Linda (University of Akron), Matney, Timothy (University of Akron) and Donkin, Ann (University of Akron)**

[42] *Finding the Edges: Working Within the Limitations of Geophysical Surveys in Archaeology*

Despite advances in equipment and data processing software utilized for archaeological geophysics, there remain serious practical limitations to their use. Maximizing the efficiency of equipment use and data collection requires familiarity with a range of potential noise sources and an appreciation of the nature of the archaeological remains likely to be encountered. This poster explores limitations of magnetic gradiometry and electrical resistivity surveys from six sites within the Cuyahoga River valley in northeastern Ohio. Potential solutions to the specific problems posed by these sites are suggested, as is a set of broad guidelines to help in project design and implementation.

**Whitridge, Peter (Memorial University of Newfoundland)**

[91] *The Production of Domestic Modernity in Eighteenth Century Labrador Inuit Households*

Fed by sensational travel accounts and the exhibition of captives, early modern imaginaries cast the Inuit in the iconic role of skin clad savage, in contradistinction to which notions of European modernity were forged. These notions in turn inflected the interactions of missionaries, traders, and other Western agents with Inuit in their own communities. The shift from small sod houses to large rectangular houses in Labrador in the eighteenth century, and associated changes in household material assemblages, must thus be understood in terms of

the negotiated production of models of modern Inuit domesticity in the intercultural space of contact.

**Whittington, Stephen (Wake Forest) and Workinger, Andrew (University of Tennessee, Chattanooga)**

[236] *Teozacoalco Archaeological Project Settlement Survey in the Area of the Mapa de Teozacoalco, Mixteca Alta, Oaxaca, Mexico*

This project is comparing the transition from autonomy to tributary during two periods of colonialism for a Mixtec administrative center. Settlement survey in the area depicted on the 1580 Mapa de Teozacoalco is exploring the social and economic impacts of Aztec colonization during the reign of Ahuitzotl (AD 1486-1502), and of 1520s Spanish colonization. The project is examining the impact of colonization on long-distance trade networks utilizing evidence from ceramics and obsidian. The capital of the Mixtec polity, the location of the Aztec garrison, and the Teozacoalco encountered by the Spanish was atop Cerro Amole, overlooking the current town.

**Wholey, Heather (West Chester University)**

[35] *Eastern Woodlands Hunter-Gatherer Settlement Demography*

Population theory engages the themes of evolution, technology, and environment, and can be employed to explore relationships between population, social organization, innovation, and human ecosystems. These relationships are particularly complex among hunter-gatherers, and so the application of archaeological data to hunter-gatherer populations has been especially difficult. To minimize inherent complications, analytical frameworks should be grounded in demographic modeling that integrates the concepts of population size, density, growth, and population pressure, as well as settlement based methodologies that address mobility, shifting territories, and group size. This paper explores this proposal within the context of temperate latitudes and Eastern Woodlands hunter-gatherers.

**Wichlacz, Caitlin (Arizona State University), Abbott, David (Arizona State University) and Moore, Gordon (Arizona State University)**

[118] *Nothing Local, Everything Imported: The Plainware Pottery at La Plata*

Temper analysis of plainware ceramics from Pueblo La Plata indicated that none of the pottery contained local sand. La Plata is located atop Perry Mesa in central Arizona, where basalt dominates the geology. Petrographic thin-section analysis confirmed our observation that basalt was not present, thereby implying that the pueblo residents obtained their pots from non-local sources. The petrographic work in conjunction with clay chemistry assays with an electron microprobe showed that the pottery was imported from at least five production zones, suggesting that pottery compositions can reveal patterns of economic dependency and interaction between Perry Mesa and the surrounding territories.

**Wicker, Nancy (University of Mississippi)**

[247] *Visibility of Runic Inscriptions and the Audience for Inscribed Monuments and Jewelry*

Functions of objects having runic inscriptions that were intended to be seen are compared and contrasted with articles that display writing not discernable by the casual viewer. Monumental stones were carved with inscriptions as public pronouncements to broadcast issues of property and inheritance. Inscriptions on small jewelry pendants such as Scandinavian Migration Period (450-600 CE) gold bracteates also visually communicated to those could not read. Such jewelry publicly conveyed notions of ethnic or cultural identity, religious affiliation, gender, and economic status, even when the viewer was illiterate or the runes too small to be seen except from an intimate distance.

**Widmer, Randolph (University of Houston)**

[242] *Community Patterning at the Key Marco Site 8Cr48*

The Key Marco site, famous for its collection of wooden artifacts recovered by Frank Cushing over 100 years ago, has all been forgotten as an archaeological site having been bulldozed, canalized and built upon to make a modern residential and commercial subdivision. Three field seasons of excavation along with salvage work has revealed a the community patterning of this important site. The site was constructed as a planned community with an occupational span of at least 1500 years. The site was composed of distinct residential, elite, and ceremonial precincts consisting of houses constructed on pilings on shell ridges or mounds.

**Wiewall, Darcy Lynn (UC Riverside)**

[189] *Variability in Domestic Space: Settlement Patterns during the Late Postclassic to Early Colonial Transition at Lamanai, Belize*

Household studies focused on the Late Postclassic (AD1450-1546) to the Early Spanish Colonial (AD1546-1650) period have begun to demonstrate the impact of the Spanish State on Maya households. Current investigations at Lamanai, Belize, are centered on identifying change and continuity in Maya commoner house-lots during this transition. A set of archaeological correlates was developed that were used to distinguish the two periods from one another. Focusing on domestic architectural remains, this paper will highlight the variability between house lot assemblages and the difficulties in distinguishing one time period from another.

**Wilbur, Alicia K. [47]** *see* Lewis, Jr., Cecil M.

**Wild, Ken (Virgin Islands National Park)**

[176] *Archeological Compliance during the Stabilization of the Castles of El Morro and San Cristobal*

The National Park Service completed a decade long project to preserve one of the oldest New World fortifications at San Juan National Historic Site. For centuries, this city evolved into one of the largest colonial fortifications in the Western Hemisphere. The fortified city of Old San Juan stands as a world legacy to what was Spain's New World empire. As the multi-million dollar stabilization project began enormous amounts of soils had to be excavated and project endeavors turned to archeological compliance and research. This paper summarizes the National Park's archeological efforts to preserve the buried past.

[176] *see* Lundberg, Emily R.

**Wilkie, Laurie A. (University of California -Berkeley) [122]** *Discussant*

**Wilkie, Laurie A. (University of California, Berkeley) and Farnsworth, Paul (Louisiana State University)**

[186] *Maintaining a Stiff Upper Lip: The Archaeology of Early 19th Century British Cultural Identity in the Bahamas*

Much colonial archaeology has focused upon cultural transformations and maintenance among colonized peoples. In these settings, colonizers also worked to maintain elements of their cultural and national identities. In remote settings, where colonizers were vastly outnumbered by colonized, staying "European" was particularly challenging. This paper examines archaeological data from British Loyalist plantations in the Bahamas between the island of New Providence, the capital of the colony, and the remote Out Islands of North Caicos and Crooked Island, to explore how British planters differentially used materiality to demarcate themselves as proper citizens of the Empire.

**Wille, Sarah (Indiana University)**

[189] *Terminal Classic Activity at Chau Hiix, Belize: A Ceramic View from the Center*

Archaeological investigations at Chau Hiix suggest Classic to Postclassic tensions were present, yet given continuities in ceramic traditions at the site and in surrounding communities, the transition was more fluid in northern Belize than in other Lowland areas. This paper focuses on the Terminal Classic at Chau Hiix by examining the excavation and analysis of ceramic and other material from an elaborate deposit near the community's center. Research addresses specific questions about the function and meaning of the deposit adjacent to an important civic-ceremonial structure, while also considering the entanglement of people, objects, and place in the tumultuous Terminal Classic.

**Willems, Willem J.H. (National Heritage Inspectorate) [124]** *Discussant*

**Williams, Jocelyn [164]** *see* White, Christine

**Williams, Lana (University of Western Ontario)**

[141] *Seasons Don't Fear the Reaper: Testing the Solar Arc Hypothesis at Kellis 2 Cemetery, Dakhleh, Egypt*

Spatial patterning of graves within cemeteries forms an important dimension of mortuary practices in any community. Attempts at spatial analysis have been made at an intra-cemetery level; however, little attention has been given to patterning for cemeteries in use over generations, primarily due to problems of understanding meaning in terms of human behavior.

Kellis 2 Cemetery, Dakhleh, Egypt, was chosen to assess changing relationships between spatial availability within a generational-use cemetery (c. 50-350 AD) and decisions taken by the living community about location and orientation of interment. Patterns of accretion and solar orientation were identified reflecting previously acknowledged changing community beliefs.

**Williams, Mark [44]** *see Ivester, Andrew*

**Williams, Patrick Ryan (The Field Museum, Chicago) and Nash, Donna (The Field Museum, Chicago)**

[149] *Sculpting Landscapes at Cerro Baul: Breaking Down the Urban-Rural Dichotomy*  
Many traditional definitions of the city contrast the urban with the rural. In the case of Cerro Baul, a Wari center (600-1000 AD), urban and rural domains cannot be geographically, economically, nor politically separated, but are part of a single and integrated social system. The urban sphere was a diverse community of food producers and non-producers who were linked together through residence in a single place and connected through social and geographic ties. In accordance with other scholars, we suggest that Andean peoples integrated and sculpted a mosaic of agricultural and residential landscapes to create the city.

**Williams, Patrick Ryan (The Field Museum, Chicago) [219]** *see Sharratt, Nicola; [219]* *see Szymczak, Joseph*

**Williams, Sloan (University of Illinois at Chicago)**

[47] *Ancient DNA Studies in Southern Peru*

Jane Buikstra's pioneering use of biodistance techniques to study human migration patterns and biological relationships among groups is just one of her many contributions to archaeology. The current state of research of this kind in southern Peru, a region where Buikstra and her students have worked since the 1980s, will be briefly addressed. The presentation will then focus on the relatively new methods of ancient DNA studies that have shown promise in the study of ancient human migration and population structure and how they are currently contributing to research in the Andean region.

[141] *see Laffoon, Jason*

**Williams, Verónica I. (Universidad de Buenos Aires), Santoro Vargas, Calogero (Universidad de Tarapaca), Romero, Alvaro, Speakman, Robert J. (University of Missouri) and Glascock, Michael (University of Missouri)**

[219] *Inka Pottery Production and Consumption in NW Argentina, Northern Chile, and Bolivia*  
We report on an ongoing INAA study of pottery from Northwestern Argentina, Northern Chile, and Southern Bolivia designed to understand ceramic production and consumption during the Inka domination of this region. Chemical analyses of ceramics aid in determining how the state managed raw material resources and pottery production in the southern Andes. As a consequence of this research we have changed our opinion regarding the Inka influence on pottery style and centralized production toward the possibility of regionalized production, consumption, and distribution of non-local and Inka styles.

**Williamson, Ronald F. (Archaeological Services Inc.) and Thomas, Stephen C. (Bioarchaeological Research)**

[241] *The Medium and the Message: Interpreting Northern Iroquoian Decorated Bone Tools*

The Northern Iroquoian practice of producing finely etched designs on bone tools is examined in the context of conveying symbolic messages. In the case of bone, the actual medium might have helped to shape and control the scale and form of people's association with the message and the social action (e.g., reinforcement of awareness) that it was meant to induce. In this way, the medium, independent of the story it accommodated, had its own intrinsic effects, which formed part of its unique message. This paper will thus examine both the symbolism inherent in the designs and the ideological roles in society of the animals from which the tools were produced.

**Williams-Shuker, Kimberly (University of Pittsburgh)**

[170] *Household Archaeology and European Contact: Domestic Stability and Change at the Rogers Farm Site*

In Contact period research, household-focused studies permit a local-level view of the transformative processes and contingencies associated with the European-Native encounter. This paper presents a comparative analysis of domestic-context remains from the Rogers Farm site, an early historic Cayuga Iroquois settlement, and the Klinko site, a pre-contact Cayuga

village, conducted to evaluate the extent of household change taking place as interaction became increasingly sustained during the 17th century. Ethnohistoric evidence is also utilized. Results indicate that some traditional patterns of household production and consumption underwent change, while the organization of domestic activities and distribution of resources remained relatively stable.

**Willoughby, Pamela (University of Alberta)**

[59] *Middle Stone Age Technology in Southern Tanzania*

Fieldwork conducted in the Songwe River Valley of the Lake Rukwa Rift in southwestern Tanzania has led to the discovery of numerous Middle and Later Stone Age archaeological sites. These include open air lithic scatters associated with river terraces, as well as stratified sites within volcanic boulder rock shelters near the village of Mapogoro. This paper reports on the test excavation of Iclu17, which contains a buried Middle Stone Age occupation. It also discusses the discovery of granite rock shelters in the neighboring Iringa Region which contain Iron Age, Later Stone Age and probably Middle Stone Age occupation horizons.

**Wilshusen, Richard (SWCA) and Potter, Jim (SWCA)**

[7] *The Emergence of Early Villages in the American Southwest: Cultural Issues and Historical Perspectives*

The first major villages emerged in the northern American Southwest by AD 770. Over the next 100 years clusters of villages formed, disintegrated, and reformed within our study area of 12,000 sq. km. Extensive contract archaeological data and fine-grained dating of the construction in these large settlements allow us to examine a wide variety of cases of village formation and abandonment. Issues such as identity construction, social and economic conflict, and rapid changes in regional population and local economies will be examined in our comparative review of the development and dissolution of this region's earliest pueblos.

**Wilson, Jennifer (Washington State University), Andrefsky, Jr., William (Washington State University) and Sudman, Natalie (Bureau of Land Management, Vale Office)**

[133] *Assessing Retouch: Is It Production or Curation?*

Measuring retouch amount on stone tools has been helpful for understanding human organizational strategies. Most retouch assessment measures assume that retouch found on stone tools occurs as a result of use or curation. This assumption is evaluated using a stone tool assemblage from western North America. It is shown that stone tool production activities may create extensive amounts of retouch on stone tools that have never been used. As such, retouch assessment strategies making links to artifact curation need to initially conduct a technological study of the tools to help determine the influence of production activities on retouch amount.

**Wilson, Jeremy [35]** *see Miroff, Laurie*

**Windingstad, Jason [109]** *see Gremillion, Kristen J.*

**Winemiller, Terance (Auburn University Montgomery)**

[177] *Water Resources, Adaptive Strategies, and Settlement Patterns in the Yucatan Peninsula: A Geographic Information Systems Analysis of Location*

A geographic information system containing positions for approximately 1700 sites was employed to investigate accessibility to water resources and settlement location. Recently collected data from archaeological sites located throughout the Yucatan Peninsula were synthesized with existing information published over the past century. Analyses suggest that the physical environment and available technology influenced settlement decisions and selection of particular adaptive strategies. The study revealed that a number of adaptive strategies occur in predictable associations with particular micro-environmental conditions. In parts of the region, more adaptive options were available to the ancient inhabitants as indicated by relatively high settlement diversity quotients.

**Winter, Marcus (Centro INAH Oaxaca)**

[142] *El Patrimonio Arqueológico de Oaxaca: Actualidad y Futuro*

La descentralización del INAH manifestada por el establecimiento del Centro INAH Oaxaca hace más de 30 años ayudó a promover la investigación, difusión y protección del patrimonio arqueológico de Oaxaca. No obstante, ahora, el crecimiento de la población del estado en combinación con las limitaciones de personal, recursos e infraestructura del INAH hace cada vez mas difícil la protección del patrimonio arqueológico. En esta ponencia se considera la



situación actual en Oaxaca y posibles medidas y prioridades para asegurar que haya un patrimonio arqueológico en el futuro.

[67] Discussant; [67] see Cortés Vilchis, Marisol Yadira; [86] see Reyes, Liliana Carla

**Wirth, Cynthia (Indiana University)**

[126] *Amending Cultural Heritage: Intentional Manipulation of Rock Art in Bonaire, Netherlands Antilles*

Rock Art is a fragile and ambiguous written record. It affords us a conjectural chance to glimpse into the creative collective and individual mind of previous cultures. Environmental conditions, graffiti artists and poor cultural resource management practices put many sites at risk for destruction. This paper will look at the progression of falsification, enhancement and destruction of rock art in Bonaire, Netherlands Antilles, through the creation of an easily accessible database compiling historical records, periodic modern archaeological assessments and testing with current digital photographs.

**Wise, Karen (Natural History Museum of Los Angeles County) and Barrionuevo, Monika**

[212] *Preceramic Period Household Archaeology on the South-Central Andean Coast*

Household archaeology deals with data from ancient domestic spaces. Household archaeology is challenging when the spatial structure of archaeological sites is ambiguous, as is often the case at the sites of mobile or very small groups of ancient people. This paper compares pre-5000 BC and post 3000 BC domestic areas at Kilometer 4 in southern Peru. A shift from ephemeral domestic structures to substantial terraces built on dense middens is seen throughout the region. Intensive excavations at Kilometer 4 provide new insights into socioeconomic changes that led to this shift, but they also highlight methodological challenges with wide ranging ramifications.

**Wisely, Sally (Bureau of Land Management), Smith, Shelley (Bureau of Land Management) and Schlanger, Sarah (Bureau of Land Management)**

[46] *Old Meets New: The Antiquities Act, Resource Management, and the Urbanizing West*

The Antiquities Act established the federal government's responsibilities for heritage resources on public lands: preservation, oversight of scientific research, and establishment of national monuments. Today, federal management occurs in the context of a rapidly urbanizing West, competition for public resources, and highly charged political environments. This paper reviews recent uses of the Act as a land allocation tool, the federal Bureau of Land Management's role in implementing the Act as stewards of the nation's most significant body of heritage resources, and the Bureau's celebration of the Act's Centennial with programs that enable and promote citizen stewardship.

**Wissemann, Sarah U. (University of Illinois), Emerson, Thomas E. (Illinois Transportation Archaeological Research Program), Hughes, Randall E. (Illinois State Geological Survey) and Farnsworth, Kenneth B. (Illinois Transportation Archaeological Research)**

[74] *Close to Home? Pipestone Resource Utilization in the Midwest*

Major pipestone quarries were located in several states in the Midwest. However, some sites were used in both ancient and modern times while others, like the source of flint clay near St. Louis, Missouri, were used for only a short time. Archaeometric analyses and experimental archaeology support the workability of rock types such as Minnesota catlinite and Illinois pipestone, but do not explain why sources were not used continuously throughout time. Other factors, such as the locations of quarries in relationship to changing population centers and new patterns of exchange are needed to explain resource utilization during prehistoric and historic periods.

**Witmore, Christopher (Stanford University)**

[121] *"A Past No Longer Past: Some Implications for a Symmetrical Archaeology*

A symmetrical archaeology recharacterizes the world, not in terms of dualisms or oppositions, but in terms of mixtures and entanglements. While it poses that we treat humans and things in the same terms, both in our articulations and in our reflexive analyses of our own practices, a symmetrical archaeology also accords the things of the past action now. This understanding holds profound implications for a discipline which considers the past to be separate, distant and distinct. This paper will offer an empirical case from the Greek Argolid and explore the implications of a "past no longer past" for archaeology.

**Witschey, Walter R. T. [177]** *see Brown, Clifford T.*

**Wobst, Martin (University of Massachusetts-Amherst) [123]** *Discussant*

**Wofford, Gabriel (University of Hawaii)**

[50] *Analysis of Soil Characteristics Associated with Agricultural Enclosures (Manavai) of Rapa Nui*

In this paper I report analyses of soil samples from inside six (6) agricultural enclosures, called manavai, from Rapa Nui, Chile (Easter Island). Samples were tested for pH, nitrogen, organic carbon, phosphorus, and other extractable nutrients. Control samples taken from outside the manavai provide a basis for comparison of the results to indicate any anthropogenic influences. Some of the manavai indicate historic or modern use, and this is taken into account in the interpretation of results to discern prehistoric usage.

**Wohlgenuth, Eric (Far Western Anthropological Research Group)**

[109] *Implications of the Central California Archaeobotanical Record for the Origins of Food Production*

The 9,000-year interior central California archaeobotanical record shows multiple stages of plant food intensification lacking in adjacent regions with near-identical plant resources. Intensification occurred primarily where productive plant resources co-occur with rich inland fisheries. The most abrupt change in the record, to intensive use of small seeds around 1,000 BP, corresponds to shifts in artifact assemblages, exchange, and settlement, and appears to reflect a major socioeconomic reorganization, perhaps from more centralized authority and redistribution to a private goods economy. These findings have implications for models of agricultural origins.

**Woiderski, Joshua [144]** *see Driver, Jonnathan*

**Wojtczak, Dorothea [162]** *see Richter, Daniel*

**Wolf, RPA, Marc (GWE Corp.)**

[237] *Remapping Copan: Details from PAPAC's New Survey in the El Bosque Region*

New detailed mapping of the southwest sector of Copan is forcing a reassessment of Maya land use and spatial organization, providing a powerful tool for the conservation of unprotected areas of the ancient city. The settlement patterns of the area reflect how the Maya exploited the natural terrain and used "empty" space to define architectural assemblages and other cultural features. These include complex drainage and water-management systems, sakbes, and previously undocumented architectural forms associated with the Copan river and the first alluvial terrace, much of which remains on private land, unprotected and subject to looting and destruction from agriculture.

**Wolfe, Alexander [204]** *see Cooke, Colin*

**Wolff, Christopher (Southern Methodist University), Adler, Michael (Southern Methodist University), Pemberton, Kevin (Southern Methodist University) and Aland, Amanda (Southern Methodist University)**

[103] *Analysis of Ceramic Source Materials from the Chaves-Hummingbird Site Using X-Ray Diffraction*

This poster presents the results from X-ray diffraction analyses conducted on composites used in the production of ceramic vessels recovered from the Chaves-Hummingbird site in northern New Mexico. Our research focus will be on sourcing the raw materials and determining the distance those materials were transported. These data are used to examine in situ technological development and innovation, versus the influx of new techniques associated with the migration of peoples in the Chaves-Hummingbird area. Therefore this research will better our understanding of technological change in ceramic production by Puebloan peoples and its articulation with proposed regional typologies.

**Wolff, Nicholas [201]** *see White, Chantel*

**Wolley Vawser, Anne (Midwest Archaeological Center, National Park Service)**

[225] *Spatial and Information Management for the National Park Service - and Beyond*

The Midwest Archeological Center of the National Park Service has worked the last 15 years to develop a truly functional information management system that includes spatial and attribute

data. A consistent set of data for all Midwest Parks was the primary goal of the work, however, many have benefited along the way. The center has assisted the USFS with data development and has shared data and methods with States, Tribes, and Federal Agencies. The NPS is also the lead agency working on development of spatial data standard for cultural resources, including archeological sites, historic structures, cultural landscapes and ethnographic resources. [225] *Discussant*; [225] *see Overturf, Jeff*

**Wolverton, Steve (University of North Texas), Kennedy, James H. (University of North Texas) and Cornelius, John D. (Orion Research & Management Services)**

[6] *Zooarchaeological Datasets and Carnivore and White-tailed Deer Management in Central Texas*

Applied zooarchaeology puts prehistoric datasets to work in conservation by adding time-depth to management strategies. In Texas several top carnivores have been extirpated, which has resulted in pest-level deer populations in areas. Differences in size of carnivores and deer between prehistory and modernity are expected given that a lack of predation has increased intraspecific competition for habitat among deer and has also potentially caused competitive release among medium-size carnivores. In the absence of Native American hunters and large carnivores, deer management can benefit from the perspective of prehistory by determining policy that more accurately approximates prehistoric conditions.

**Wolverton, Steve** [6] *see Nagaoka, Lisa*; [79] *see Fullerton, Ben*

**Wolyne, Renata (Edinboro University of PA)**

[38] *State and National Education Standards Provide an Opportunity for Public Outreach: A Case Study*

State and national education standards can provide unprecedented opportunities to teach about archaeological research and the products of this research. Although no standards specifically identify archaeology, they do identify the need to use and interpret primary resources, to learn about state histories before the coming of Europeans, and many other needs. This poster will present a lesson plan which uses primary resources, in the forms of journals and maps, to address questions associated with the location of an archaeological site.

**Wonderley, Anthony (Oneida Indian Nation)**

[241] *Iroquois Ceramic Iconography: New Evidence from the Oneida Vaillancourt Site*  
Research sponsored by today's Oneida Indian Nation is shedding light on a ceramic tradition of humanoid depictions developed by Oneida potters some five hundred years ago. Recently excavated material clarifies the functional context of effigy pottery while expanding the repertoire of associated decorative elements to include what archaeologists regard as the corn-ear design and the ladder motif. These data carry interesting implications for understanding interregional ties. The new findings also bring into focus what is now a dated moment in time when a distinctive system of cultural meaning—one including allusion to corn-coalesced in present central New York.

**Wood, Amy** [66] *see Schulz, Margaret*; [172] *see Rush, Laurie*

**Wood, Laura** [92] *see Reed, Kristen*

**Wood, Malcolm (University of Georgia)**

[242] *Moore's "Lost" Mound: Discovery and Testing of a Mound Site in the Lower Savannah River Valley*

In 1898, Clarence Bloomfield Moore traveled the Savannah River, investigating known aboriginal sites, documenting their locations, and describing his finds. Although several of the sites Moore visited in Georgia and South Carolina have been identified, some remain lost in the floodplain swamps of the lower Savannah, perhaps forever. A recently discovered mound site, 9SN215, is likely one of Moore's "lost" mounds. This paper will describe Moore's investigations of the site, the author's efforts at rediscovery, and results of preliminary archaeological investigations there. It will also address the possible roles of 9SN215 within the sociopolitical framework of the Savannah River chiefdoms.

**Woodfill, Brent (Vanderbilt University)**

[25] *New Evidence of Interregional Trade in Alta Verapaz, Guatemala*

Since 2001, the Vanderbilt Upper Pasi6n Archaeological Cave Survey has been working in the transitional region between the Maya highlands and lowlands, and has uncovered evidence of

nearly 2000 years of movement through the region. Preliminary evidence suggests that the trade route under investigation, which follows the Río Pasión and continues to the central highlands through interconnected valleys, was subject to sporadic use until the middle of the Early Classic, when the route fell under control of the Central Petén. In the Late Classic, control of the route fragmented until solidified by Calakmul.

[29] see Monterroso, Mirza

**Woodman, Peter (University College Cork)**

[206] *Transitions to Farming in Ireland*

While the debate on the issues associated with the transition to farming in Western Europe has often been couched in a series of stark alternatives, it is apparent that in many areas there are significant differences, both in how the transition took place and in the nature of farming practices adopted. These issues will be discussed in the context of Ireland.

**Woods, Alexander (University of Iowa) and Enloe, James (University of Iowa)**

[76] *Sorting It All Out: Consistent Spatial Patterning in Faunal Exploitation at Pincevent Level IV-20*

We present an analysis of the spatial distribution of faunal remains from Level IV-20 of the Magdalenian site of Pincevent. The K-means clustering algorithm is used to divide the dataset, allowing for the comparison of multiple domestic occupation units across the site. Our findings have both methodological and anthropological ramifications. The utility of the K-means algorithm for defining units of analysis is discussed, and the results of the faunal analysis reveal consistent patterns of resource use across the site. This yields new insights into the structure of economic organization at the end of the Ice Age in the Paris Basin.

**Woods, William (University of Kansas) and Kern, Dirse (Museu Paraense Emilio Goeldi)**

[90] *Societal Complexity and Anthrosols in Amazonia: A Critical Synergy*

Lowland Amazonian soils are almost universally thought of as extremely forbidding and have been cited as a fundamental cause for lack of regional cultural attainment. However, it is now clear that complex societies with large, sedentary populations were present before European contact. Often associated with these are tracts of anomalously fertile, dark soils termed terra preta. Throughout Amazonia terra preta is found in circumscribed patches of less than a hectare to several square kilometers. These soils are presently an important agricultural resource and provide a model for developing long-term future sustainability of food production in lowland tropical environments.

**Woollett, Jim (Université Laval)**

[239] *An Historical Ecology Perspective on Thule/Inuit Subsistence in Labrador*

Thirty years of archaeological research has considered the modes of subsistence linked with the transitions from Dorset to Thule to Inuit cultures in Labrador, northern Canada. Nevertheless, the general lack of zooarchaeological data and diachronic sequences has limited economic reconstructions. This paper examines existing subsistence reconstructions in Labrador in light of recent multidisciplinary research focused upon the regional diachronic sequences of Hamilton Inlet and by current research in the locality of Dog Island. The long-term landscape histories provided by these studies are needed to evaluate the zooarchaeological record of isolated sites and for relating subsistence reconstructions to high-resolution palaeoclimate records.

**Worker, Andrew [177] see Manahan, T. Kam; [236] see Whittington, Stephen**

**Worman, F. Scott (University of New Mexico) and Boone, James L. (University of New Mexico)**

[71] *Take a Closer Look: New Evidence for Variation in Settlement and Land Use during the Islamic Period in Southern Portugal*

Surveys and an intensive program of radiocarbon dating in the Lower Alentejo have shown that rural settlement density was higher in the Islamic period than before or since, but depopulation preceded the "reconquista" by as much as 100 years. Recent work implicates anthropogenic environmental degradation as the proximate cause. Ongoing investigations are beginning to reveal additional patterns of variation within the Islamic period. A large-scale pedestrian survey showed strikingly different occupational histories in two study areas separated by 25km. Geoarchaeological research suggests these patterns can be explained by characteristics of the physical environment and long term human-landscape interaction.

**Worth, John E. (Randell Research Center)**

[248] *The Social Geography of South Florida during the Spanish Colonial Era*

Between 1513 and 1760, the indigenous societies of South Florida were subjected to increasingly forceful external pressures which eventually led to cultural extinction. Nevertheless, perhaps more effectively than any other region of greater Spanish Florida, the Calusa and their neighbors mounted a conscious and proactive resistance to these colonial forces, preserving many elements of their traditional culture while simultaneously dooming themselves to eventual destruction and exile. Synthetic review of available ethnohistorical and archaeological data throughout this period provides important insights regarding the social geography of this unique nonagricultural region sandwiched between the agricultural peoples of northern Florida and Cuba.

**Wozniak, Joan**

[50] *Publishing a Manual on Traditional Rapa Nui Gardening Practices*

Although archaeologists have identified more than seven categories of gardens and their geomorphic settings on Rapa Nui, we still do not fully understand what plants were grown in each of these different garden types prehistorically. In this paper, we described our attempt to better understand actual planting and harvesting activities prior to Western influences. I discuss recent work with Rapa Nui horticulturalists as they describe traditional crop plants and gardening practices. This recent ethnographic work and associated archaeological findings describing traditional Rapa Nui horticulture will be combined in a multilingual guide.

**Wright, Aaron (Washington State University)**

[79] *Corn and Climate: A Paleoeological Approach to the Forager - Farmer Transition in the Northern San Juan Basin*

The introduction of agricultural practices during the late Archaic period (1000 BC - AD 500) is a poorly understood sequence of cultural evolution in the northern San Juan Basin. Likewise, researchers have not adequately addressed the regional paleoclimatic patterns that were concurrent with the transition from a foraging to farming subsistence strategy. This study uses an index of alpine pollen rain from the La Plata Mountains in southwest Colorado to delineate long-term, low frequency fluctuations in regional temperature trends and how associated changes in growing season duration potentially influenced the arrival of, and subsequent intensification in agriculture by regional populations.

**Wright, Alice (Wake Forest University), Thacker, Paul (Wake Forest University) and Pereira, Carlos (Camara Municipal de Rio Maior)**

[42] *Infrared Photography and Digital Enhancement of Prehistoric Rock Art in Karstic Portuguese Ribatejo*

Prehistoric groups intensively utilized caves and rockshelters of the central Portuguese limestone karst throughout the early Holocene. Preserved rock art is rare in the region, however, because of extensive patina formation and destructive weathering resulting from generally warm and humid paleoclimatic conditions coupled with local limestone geochemistry. Possible painted surfaces at Abrigo de Vibora, likely of Chalcolithic age, were analyzed using two types of infrared photography and high resolution digital image processing techniques. The accepted painted panel at nearby Lapa dos Coelhoes provided a methodological control. Results, while mixed, indicate the potential of these techniques for documenting indistinct rock art in temperate climate zones.

**Wright, Henry [101] see Rupley, Eric****Wright, Lori E. (Texas A&M University)**

[47] *An Isotope Study of Childhood Diet and Mobility at Copan, Honduras*

Stable isotopic studies of tooth enamel provide a means to study childhood nutrition in the skeletons of individuals who lived to adulthood. While carbon isotopes measure diet, oxygen isotopes aid study of population movement and breastfeeding. This paper describes age-specific changes in the isotope composition of teeth of Early Classic elite skeletons from Copan, Honduras, several of whom may have been migrants from distant lands. I consider factors that may explain why these skeletons show highly varied changes in their isotope ratios during childhood, such as migration, rainfall seasonality, weaning, and social differences in diet.

**Wright, Patti (University of Missouri-St. Louis)**

[187] *Collecting, Planting, and Harvesting Along the Lower Missouri River Valley and Its "Hinterlands"*

Over the past several decades, a number of sites located along the lower 30 miles of the Missouri River have been excavated. Flotation samples have been collected and technical reports about plant use have been written. However, presentation and knowledge of the plant data pales in comparison to information forthcoming from the adjacent American Bottom region of Illinois. Herein, I synthesize the "Missouri" data, and then compare the results to plant remains collected from coeval sites in the American Bottom and adjacent Illinois uplands to illustrate and to interpret the spatial and temporal variability in late prehistoric subsistence practices.

**Wright, Patti [44]** *see Braadbaart, Freek*

**Wright, Rita (New York University)**

[85] *Degendered Pasts. New Light on the Dawn of Consciousness*

Some twenty years have passed since gender studies were introduced into archaeological theorizing. In rapid succession, conceptions of engendered pasts gave way to degendered analyses in which new categories and interrogation of other "privileged" ones were discarded and reconceived. This paper evaluates claims of a new consciousness raised by some recent studies of gender and other social differences. Has the lumping together of all western philosophical trends muddled rather than clarified our understanding of social relations, historical contingency and the archaeological project? This paper seeks alternative ways of analyzing the relation of individuals and groups (various categories) to social institutions.

**[11]** *Discussant*

**Wrinn, Patrick (University of Arizona)**

[239] *Human and Carnivore Occupation of Denisova Cave, Altai Mountains, Siberia*

The Altai Mountains, Siberia, were an ecological refugium for animals and humans during cold phases of the late Pleistocene. Archaeologists have classified Denisova Cave, which has yielded a rich collection of Middle and Upper Paleolithic artifacts as well as bone ornaments, as a long-term human habitation site. However, taphonomic data from faunal analyses indicate that Denisova was mainly used by carnivores, particularly hyena and cave bear. Human occupation was ephemeral, while carnivore activity seems to have been greater in the Upper Paleolithic layers. Human visits may have been more regular at this time, attracting carnivores to leftover food debris.

**Wrobel, Gabriel (University of Mississippi), Cook, Della (Indiana University) and Helmuth, Hermann (Trent)**

[189] *Change in Age and Sex Ratios from Late Classic to Postclassic at Chau Hiix and Lamanai, Belize*

Bioanthropological analyses of ancient Maya populations are largely restricted to data from locations of research interest to archaeologists, i.e., generally the most visible and central architecture. Age and sex data from the Maya sites of Chau Hiix and Lamanai, Belize were analyzed to identify changing mortuary practices related to burial in domestic versus central locations. We explore sources of bias within these two databases. We note a drastic shift during the Terminal Classic period to more inclusive mortuary practices, in which age and sex ratios are closer to frequencies found in similar pre-industrial societies.

**Wrobel, Gabriel [139]** *see Haley, Bryan*; **[141]** *see Hardy, Jessica*; **[238]** *see Tyler, James*

**Wurst, LouAnn (SUNY Brockport) [13]** *Discussant***Wurtz, Michelle (Geo-Marine, Inc.), Brink, Jack (Royal Alberta Museum) and Magne, Martin (Parks Canada)**

[62] *Recording a Vanishing History: 3D Scanning at Writing-on-Stone Provincial Park*

Writing-On-Stone Provincial Park, located in south-central Alberta, Canada, protects the largest concentration of native rock art on the Great Plains. Weathering of the sandstone, however, means that this rock art will not survive forever. Experimentation with close-range laser scanning was conducted to determine if this significant record can be preserved cost effectively and be reproduced in a different medium for future generations. Test results indicate that laser scanning of rock art presents logistical challenges; nevertheless, the resulting precision, the ability to share the data, and the ability to reproduce the rock art is far superior to traditional recording methods.

**Wurtz, Michelle [62]** *see Peter, Duane*

**Wurz, Sarah (University of Stellenbosch) and Van Peer, Philip**

[98] *Inferring Cognition from Late Pleistocene Stone Tools from Northern and Southern Africa*

This paper discusses the patterning in Middle Stone Age and Middle Palaeolithic stone artifacts from Klasies River and sites in the Nile Valley. In these assemblages the Levallois and related technological strategies were used to produce blades and points to specified norms. This represents evidence of "imposed form" between 110,000 and 70,000 years ago in North and South Africa. Clearly delineated time-ordered groups, perhaps traditions, can be discerned in both sets of assemblages. This level of patterning appears to be a characteristic of the Late Pleistocene in Africa.

**Wurz, Sarah [197]** see Van Peer, Philip

**Wyatt, Andrew (University of Illinois at Chicago)**

[158] *The Paleoethnobotany of Intensive Agriculture: Agricultural Terraces at Chan, Belize*  
The Chan site in the Belize River Valley has the highest density of agricultural terraces in the area, making it one of the most intensively farmed sites in the Maya Lowlands. The Chan Archaeological Project has been examining these terraces for the past three years, studying the relationship between intensive agriculture and political economy. Paleoethnobotanical analysis is vital to this project as it is necessary to identify the crops of the producers in the political economy. This paper will present the initial findings of the paleoethnobotanical analysis from excavations on the agricultural terraces.

**Wyman, Daniel RK (University of Alabama)**

[25] *Trading in Royalty: Ceramic Exchange and the Development of Classic Maya Interregional Politics at Actuncan, Belize*

Trade interactions between lowland Maya polities have been a central focus for understanding political developments among the Classic Maya. The site of Actuncan in the Upper Belize Valley is located near the highest navigable point of the Mopan River and may have controlled access to the river and the sea during the Early Classic (AD250-500) period. Elite ceramic vessels, used as political currency, can be used to understand if central Petén elites expanded their influence into this area to control this trading corridor. Comparisons between ceramics uncovered from Actuncan and Uaxactún will provide insights into the nature of this interaction.

**Wymer, DeeAnne (Bloomsburg University)**

[170] *Is the Household Concept a Useful Analytical Tool in Hopewell Studies?*

The Ohio Hopewell moundbuilders have fascinated scholars and the public since the discovery of their intriguing earthworks. However, a clear understanding of the civic-ceremonial interface still eludes us and researchers struggle with basic questions focusing on community structure and subsistence. What mechanisms drew together scattered populations to build the earthworks? Recent debates in the literature also focus on the structure of Hopewell habitation sites and the sedentary nature of the populations. This paper will illuminate these topics by discussing recent excavations at a remarkable Ohio Hopewell site and exploring how do we define the unit "household" for these populations.

**Wynn, Tom (University of Colorado, Colorado Springs)**

[98] *Levallois Expertise*

The chaîne opératoire method provides reliable, detailed descriptions of prehistoric action sequences. When interpreted in the context of established cognitive theory, these descriptions can yield a picture of the cognitive bases of the activity. One of the best documented chaînes opératoires is that of Levallois reduction. When interpreted in light of the cognitive theory of long-term working memory and anthropological studies of technical cognition a clear picture of "expert performance" emerges, which in turn allows comparison with other archaic and modern activities.

**Yaeger, Jason (University of Wisconsin- Madison)**

[54] *Building Traditions: Inka Creation Narratives, Imperial Ideology, and the Built Environment at Tiwanaku*

Empires expand through political negotiations, economic domination, and military conquest, but imperial hegemony also rests on ideology. Imperial ideologies legitimize the domination of one group over others, often in terms of cosmogony, invoking traditions and practices familiar to imperial subjects, but reworking them in ways that underwrite the new imperial political order. This paper discusses the ways in which creation narratives legitimized Inka domination of subject

peoples, naturalizing essentialized categories of ethnicity. It also examines how those narratives and the resulting identities were communicated through innovative practices at Tiwanaku, a site the Inka reconfigured to suit that purpose.

[163] *Discussant*

**Yates, Donna (University of Cambridge) and Augustine, Jonah (University of Toronto)**

[163] *New Discoveries and Unexpected Contexts: Continued Excavations to the West of the Akapana Pyramid, Tiwanaku, Bolivia*

In the area to the west of the Akapana pyramid and to the south of the Putuni temple complex a wide range of contexts were found in a relatively small area. The area was in constant flux with structures used, demolished, and rebuilt upon over much of Tiwanaku's history. The changes in the building technique and the use of space over time are reflexive of changes that were occurring throughout the rest of this Andean site; thus, they may be considered representative of larger patterns of activity.

**Yates, Emily (National Park Service, Southeast Archeological Center)**

[70] *Wealth in Ruins: Rich History of a Caribbean Plantation*

Industrial prospects and agricultural failures, construction, renovation and collapse, freedman yet slave owner, and a plantation's wealth consumed by fire – Carolina Point Plantation on Water Island, USVI offers a variety of perspectives on 19th century plantation life. This gentleman's farm has a history shaped by strife and struggles; this plantation house is a comprehensive cache unparalleled by any other. The rich archaeological record was preserved by a collapsed wall during a devastating fire. It is within these ruins we find windows into the past.

**Yellen, John (National Science Foundation), Brooks, Alison (George Washington University), Behrensmeyer, Kay (Smithsonian Institution), Potts, Rick (Smithsonian Institution) and Deino, Al (Berkeley Geochronology Center)**

[32] *Behavioral Changes Within the Middle Stone Age of Eastern Africa*

Archaeological occurrences at Katanda (Congo), Aduma (Ethiopia) and =Gi (Botswana) represent a later stage of the Middle Stone Age (MSA) and date to approximately 80,000 to 100,000 years ago. An undated assemblage at Aduma and sites currently under excavation at Olorgesailie (Kenya) dating from <220 kyr to >340 kyr document an earlier stage of the MSA providing a basis for comparison. The early MSA Olorgesailie lithic assemblages exhibit strikingly diverse patterns that differ from those of the later assemblages elsewhere in the region. The Olorgesailie patterning suggests either activity specialization or some other form of behavioral complexity.

Yellen, John [59] *see Brooks, Alison*

Yentsch, Andy [106] *see Barlow, Renee*

Yepetz Alvarez, Willy [68] *see Jennings, Justin*

Yerka, Stephen [66] *see Anderson, David*

**Yerkes, Richard (Ohio State University), Parkinson, William (Florida State University) and Gyucha, Attila (Békés County Museum, Hungary)**

[153] *The Körös Regional Archaeological Project Field School, 2005*

The Körös Regional Archaeological Project operates a field school that allows ten American undergraduate students to participate as researchers during the field season. In 2005, undergraduates conducted independent research projects on paleobotany, ceramic stylistic variability, ceramic production, geomorphology, and prehistoric fortifications. This paper discusses the importance of the field school and the contribution of the student researchers.

Yerkes, Richard [153] *see Parkinson, William; [153] see Gyucha, Attila*

**Yoder, Cassidy (Texas A&M University)**

[252] *Dietary Change and Heterogeneity in Medieval Denmark: A Stable Isotopic Examination*

In this paper, I present carbon and nitrogen stable isotope values from human skeletal material from the medieval period of Denmark (1050-1536 AD). I examine differences in diet through time, by social class (peasant, elite and monastic populations), and by location (urban and rural). Isotope ratios show significant temporal differences, as the period 1300-1375 AD exhibited the greatest reliance on terrestrial animals and plants. Elites and monks enjoyed a diet with significantly more terrestrial meat and marine products than did those of the peasant class.



Finally, urban populations consumed significantly more meat and marine products than did their rural counterparts.

**Yoffee, Norman** (University Of Michigan) [26] *Discussant*; [169] *Discussant*

**York, Andy** [155] *see Douglass, John*

**York, Gigi** (NMI Museum, Saipan) and **York, Robert** (George C. Frison Institute, U. of Wyoming)

[100] *Slingstones and the Missile Firing Flexible Hand Sling -- The Forgotten Projectile Weapon of the Pacific and the Americas*

The missile firing flexible hand sling, of David vs Goliath fame, was the premier projectile weapon of the pre-European Pacific Islanders and Andean Cultures of South America. Bipointed stone and clay sling missiles were manufactured throughout Oceania and it appears from ca 8000-3000 BP in western North America and the Caribbean. These data have been all but forgotten or ignored by archaeologists. Study of the humble slingstone has the potential to contribute significantly towards resolution of many questions relative to the decision processes of human societies, such as "Tregear's Conundrum" and pre-European Pacific Islands contacts with the Americas.

**York, Robert** [100] *see York, Gigi*

**Yost, Lynne** [44] *see Pentney, Sandra*

**Young, Tatiana** (University of Pennsylvania)

[131] *The Site of Parcela Escolar, Q.Roo*

During the 2005 field season, the site of Pamela Escolar was recorded for the first time using a tape and compass. Additionally, one plaza test pit was excavated in an elevated area between residential structures. One of the major goals of the research was to gain a better understanding of the spatial and temporal relationships of Parcela Escolar to the other sites in the CRAS study area, especially to the adjacent site of Sacalaca. A relationship to, or some degree of dependence, upon Sacalaca can be proposed based upon the layout and makeup of Parcela Escolar and the periods during which it was occupied. Parcela Escolar, which is situated on the periphery of Sacalaca and bears a resemblance to the northeastern group of Sacalaca, may actually be an extension of the site itself, which is now heavily affected by modern settlement.

**Youngblood, Dawn** (Southern Methodist University), **Sampson, Garth** (Southern Methodist University) and **Jarvis, Hugh** (SUNY Buffalo)

[143] *Hornfels Artifact Sourcing by Instrumental Neutron Activation Analysis (INAA) in the Karoo Region of South Africa*

Hornfels was a major source of prehistoric toolstone across the South African central plateau where 1,000+ hornfels quarries with evidence of use since Acheulean times are recorded for the Seacow River valley alone. We sampled 39 outcrops within ~8-km radius of Haaskraal Rockshelter (LSA) and matched elemental composition of ~300 artifacts. Some 46% of artifacts were direct matches; 51% of endscrapers, 42% of flakes. Few artifacts (15% maximum) appear derived from quarries outside the sampling radius. With due caution, we conclude that hornfels sourcing by INAA is viable, and could be applied to regional sites of all ages.

**Yu, Pei-Lin** (US Bureau of Reclamation)

[137] *Pit Cooking and Intensification in the American Southwest and Pacific Northwest*

This research examines ethnographic patterning in pit cooking across the American West to explore and quantify intensification. In arid environments, forager dependence on plant foods is found to increase pit hearth size. In riverine environments, forager dependence on aquatic foods is found to increase pit hearth size. This pattern highlights the difference between intensification within a narrow niche of limited resources versus a broader productive niche: the finding bears directly upon mode of forager intensification using food production versus specialization in bulk processing of wild resources.

**Yucha, Trevor** [35] *see Byrnes, Allison*

**Zacher, Melanie** (University of Illinois at Chicago), **Kusimba, Sibel** (Northern Illinois University) and **Kusimba, Chapurukha** (Field Museum)

[169] *Precolonial Ethnomosaics of Western Kenya and Eastern Uganda*

The Western Kenya/Eastern Uganda area is a crucial but little known region in the debate on

the evolution and development of food production, metallurgy, and pottery-making tradition usually associated with large-scale migrations in Eastern and Southern Africa. These Holocene cultural processes were not a single "expansion" but the outcome of regional dynamics of immigration, diffusion, invention, and admixture, in which interactions amongst diverse communities practicing different but complementary subsistence strategies played a crucial role. Our paper will highlight the evolution of ethnic mosaics in Western Kenya over the last 2000 years.

**Zacher, Melanie [40]** *see Kusimba, Sibel*

**Zagarell, Allen (Western Michigan University)**

[85] *Materialist Approaches in Archaeology*

Archaeological explanation has alternated between largely untested, so-called "scientific" models, either broadly ecological in orientation (processual), or essentially descriptive (so-called Darwinian approaches), and post-processual approaches, rejecting the rigid confines of processualism, but often particularistic and speculative. Based upon materials from my work in South India and Central Asia (Tajikistan), I will argue that archaeological explanation can be/must be materialist, historical, and comparative, dealing with both the economic/political aspects of society, as well as those normally deemed non-materialist in nature.

**Zangrando, A. Francisco (CONICET-AIA / Universidad de Buenos Aires )**

[89] *Spatial and Temporal Variability of Fish Use at the Southern End of South America*

The archaeological record of Patagonia and Tierra del Fuego (southern South America) points out the existence of spatial and temporal variability in fish exploitation. In the Magellan-Fuegian archipelago, an intensification of the human use of fish was developed during the mid-and late-Holocene. The archaeological assemblages of this area show that a wide variety of fishing strategies were in place. This situation differed from what happened in the Atlantic coasts, where the available data suggest that the use of fish was a supplemental activity. Ecological and cultural factors related to this pattern are discussed.

**Zaragoza, Diana (INAH)**

[200] *Elementos Arqueológicos "Mayas" en la Huasteca*

Durante 2004, dentro del Proyecto para la Determinación Geográfica del área cultural Huasteca, localizamos en Hidalgo un elemento, que por el momento, sólo hemos podido comparar con las torres emblema que hay en la península de Yucatán, a más de 1,500 kilómetros de distancia. Por la cerámica colectada pensamos que este asentamiento debió construirse alrededor del año 1000 es decir que ¿es entonces cuando llegan los grupos de habla maya a la región? Con mayores investigaciones en el sitio, podremos responder a esta pregunta.

**Zaro, Gregory (University of New Mexico)**

[152] *Multi-scalar Perspectives on the Courses and Consequences of Agricultural Land Use along the Arid Osmore Coast of Southern Peru*

Agrarian landscapes represent a critical yet dynamic point of articulation between humans and their environment. As a product of co-evolving cultural and natural processes, analyses of agricultural landscapes require explicit concepts of scale, both spatial and temporal, to understand the complex relationships among variables like cultural practice, environment, population, and technology. This paper examines issues of scale as they relate to long-term courses of agricultural land use along the far south coast of Peru over the past millennium. The scales of analysis employed here are explicitly nested, providing a more powerful explanation of historically contingent and agriculturally related human behavior.

**Zavala, Bridget (INAH Durango) and Punzo Diaz, José Luis (INAH Durango)**

[27] *Carving Out a Hill: The Creation of Public and Private Spaces at Chalchihuites Sites in the Valley of Guadiana, Durango, Mexico*

The state of Durango, Mexico occupies a key geographical space between Mesoamerica and northwest Mexico/ the U.S. Southwest. In the valley of Guadiana the pre-Hispanic inhabitants opted to appropriate hills for the construction of their homes, the locus of their daily activities and the edification of ceremonial spaces. The complex network of terraces, paths, and walls created public and private spaces at the site. In this paper, we will discuss the particularities of inhabiting uphill spaces for the Chalchihuites people of the valley of Guadiana.

**Zedeno, Maria Nieves (University of Arizona), Murray, John (Blackfeet Tribe), Tatsey, Terry (Blackfeet Community College), Tatsey, Keith (Blackfeet Community College) and Whitford, Lea (Blackfeet Community College)**

[2] *Threatened Mountains, Troubled Blackfeet: Documenting Traditional Use History of the Badger-Two Medicine District, Montana*

The Blackfeet Tribe is a leading voice in the public rejection of oil and gas exploration proposals along the Rocky Mountain Front, a portion of which we arguably ceded in 1896. This "ceded strip," now partially included in a Traditional Cultural District managed by the US Forest Service, encompasses the watersheds of Badger and Birch Creeks and the South Fork of Two Medicine River—a "Holy Land" containing numerous locales associated with origin traditions, religious practices, and everyday activities. Collaborative research stimulated by the reopening of drilling leases revealed previously undocumented cultural connections between the Blackfeet and the watersheds.

**Zedeno, Maria Nieves [2]** see Jelinek, Lauren; [2] see Grinnell, Calvin

**Zeder, Melinda (Smithsonian Institution) [88]** *Discussant*; [144] *Discussant*

**Zeidler, James (Colorado State University)**

[69] *Network Centrality, Political Authority, and Prehispanic Settlement Systems in the Jama Valley, Coastal Ecuador*

Previous analyses of settlement pattern data from the Jama Valley, coastal Ecuador, have emphasized examination of rank-size graphs for characterizing population distributions and social interaction. While productive, this approach was deemed incomplete due to its reliance on site size as the sole indicator of site importance at the expense of other possible indicators such as civic-ceremonial mound-building and settlement system centrality. This paper explores social network analysis as a means of capturing these other indicators and shedding new light on intra-valley settlement dynamics and political centralization in Jama-Coaque chiefdom formations between AD 400-1200.

**Zeitlin, Judith (UMass Boston)**

[216] *Transforming Cultures, Enduring Identities: Change and Persistence among the Isthmus Zapotec*

Archaeology confirms what a modern observer of traditional Isthmus Zapotec culture may conclude -- that this populous indigenous society has a propensity for incorporating new goods and technologies imported from the outside world and redefined as local cultural markers. The colonial period material record for the Tehuantepec region similarly reflects wide-ranging cultural changes, many developed through an active engagement with the new market economy. Ethnohistorical data outline specific structures that enabled the social reproduction of distinctive meanings and values associated with these introduced forms, while frequent confrontations with Spaniards fostered an oppositional identity preserved actively in narrative history.

**Zeleznik, Scott (University of Michigan) and Reed, David (University of Michigan)**

[218] *Scales of Complexity – Complexity of Scales: Reliability Analysis of Mortuary Remains as Nuanced Measure of Social Complexity*

Social scientists strive to understand the social tapestry. Archaeologists, plagued by data deficiencies, can use established methods for insights into the nuanced complexities of ancient social interaction and hierarchy. We use reliability analysis to examine 683 burials from our work in the Copan Valley, Honduras, and then generalize its application as a mortuary analysis tool to other Mesoamerican and global societies. More than a methodological exercise, we additionally show how many models of social complexity utilizing mortuary remains that partition data into discrete clusters lose information, produce misleading results, and fail to portray what anthropologists know about social complexity.

**Zilhao, Joao (University of Lisbon) [19]** *Discussant*

**Zimmerman, Andrew [90]** see Rivas, Santiago

**Zimmerman, Larry (IUPUI/Eiteljorg Museum) [94]** *Discussant*

**Zobler, Kari (Boston University)**

[163] *Puma Iconography in Tiwanaku Ceramics: A Stylistic Analysis of Artifacts from the French Scientific Mission*

Reinterpretation of previously unpublished photos taken of artifacts excavated by the French Scientific Mission at Tiwanaku has yielded insight into the development of stylistic change in puma iconography within the Titicaca basin. The oscillation between abstract and naturalistic features during the same relative period indicates the coexistence of diverse regional styles used within Tiwanaku, as well as different conceptions of the puma itself. By comparing artifacts from the French expedition with contemporary examples from both the Tiwanaku and Katari Valleys, this study will attempt to reconstruct the context, and perhaps, part of the underlying significance, of these previously unstudied artifacts.

**Zovar, Jennifer (Vanderbilt University)**

[69] *Make Ready the Feast: Communal Food Preparation and the Rise of Complexity in Late Formative Bolivia*

Rituals of commensalism have a long history in the Andes and often play a central role in theories about the rise of social complexity. In the southern Titicaca Basin, considerable sociopolitical transformations were taking place during the Late Formative. At the site of Khonkho Wankane, in Bolivia's Desaguadero valley, one compound, originally identified as residential, may have actually had a more ceremonial function related to the production of food for large-scale feasting events. This paper will review theories related to the importance of feasting in Andean development and will consider how this site adds to our understanding of the phenomenon.

**Zubrow, Ezra (University at Buffalo)**

[83] *The Archaeology of Equality*

Traditionally archaeologists have addressed the question of status and elites. This paper examines the nature of equality and how it is expressed in the archaeological record. Four models of equality are appraised based upon different theoretical underpinnings. They are the equal treatment model (equal treatment for equals and differential treatment for unequals), the equality of outcome model, the equality of opportunity model, and the equality of resource model. Examples from the Upper Paleolithic archaeological record are considered from each of these perspectives.

**Zurita-Noguera, Judith (Instituto de Investigaciones Antropológicas, UNAM) and Cyphers, Ann (Instituto de Investigaciones Antropológicas, UNAM)**

[142] *Situación Actual del Patrimonio Arqueológico en San Lorenzo Tenochtitlán*

En este trabajo presentaremos aspectos de la problemática del patrimonio arqueológico en la capital olmeca de San Lorenzo Tenochtitlán, Veracruz, México. Entre los aspectos a tratar se incluyen: la preservación del sitio arqueológico y la importancia del museo de sitio.

**Zurita-Noguera, Judith [207] see Cyphers, Ann**

**Zvelebil, Marek (University of Sheffield)**

[19] *Neolithic Origins and the Spread of Agriculture in Europe: The Current State of Debate*

The aim of this contribution is to inform the audience about the current state of the debate about the agricultural dispersals in Europe and the emergence of the Neolithic. Principal explanations are critically reviewed in the light of recent archaeological and genetic evidence. A case is made for a new synthesis based on revaluation of both archaeological cultures and human biological, including genetic, information.