

## SYMPOSIUM ABSTRACTS

### Abstracts of the 70<sup>th</sup> Annual Meeting, Salt Lake City, March-April 3, 2005

**[1A] WORKSHOP ■ NATIONAL REGISTER/NATIONAL HISTORIC LANDMARKS WORKSHOP FOR  
ARCHAEOLOGISTS**

**[1B] WORKSHOP ■ ROCK ART SITE MANAGEMENT WORKSHOP**

**[1] OPENING SESSION • RECENT RESEARCH ON THE PREHISTORIC ARCHAEOLOGY OF THE ARID  
AMERICAN WEST**

*(Sponsored by SAA Program Chair's Session)*

Over the past century, much research on the prehistory of the arid American West has focused on three broad topics: 1) the economics and ecology of Paleo-Indian and Archaic hunter-gatherers, 2) the spread of agriculture, and 3) the development of social hierarchies, particularly along the southern California Coast. In recent years, some of the best of this work has been cast in the theoretical framework of behavioral ecology. The six papers in this symposium provide SAA visitors from other parts of the world with especially provocative examples of the results of this research.

**[2A] WORKSHOP ■ PUBLIC OUTREACH TO PROMOTE STEWARDSHIP—LESSONS FROM THE  
“INTERPRETIVE” PROFESSION**

**[2] POSTER SESSION • CURRENT PERSPECTIVES ON BISON PALEOECOLOGY AND ARCHAEOLOGY**

Bison remains have traditionally been an important source of information regarding cultural and environmental processes throughout North America. Using data derived from modern bison herds, archaeological faunal assemblages, and paleontological deposits, papers in this session will examine a diverse array of issues concerning bison biology and ecology, paleoenvironmental reconstruction, and human predation/processing strategies. A variety of analytical strategies, including studies of stable isotopes, paleobotanical, osteometric, skeletal morphology, site formational processes, and cultural modifications, are employed on bison faunal assemblages at various spatial and temporal scales.

**[3] POSTER SESSION • HISTORICAL ARCHAEOLOGY**

**[4] POSTER SESSION • ASIA, THE PACIFIC, AND AFRICA**

**[5] POSTER SESSION • MIDWEST, NORTHEAST, AND ATLANTIC**

**[6] SYMPOSIUM • FOR THE DIRECTOR II: RESEARCH PAPERS ON ENGAGED ARCHAEOLOGY AND  
MUSEOLOGY IN HONOR OF RICHARD I. FORD (PART I)**

Engaged anthropology---as taught and practiced by Richard I. Ford---is an anthropology informed by and involved with the lives and cultures of real people, past and present. Papers by Ford's students and colleagues demonstrate engaged perspectives in archaeological, ethnohistoric, ethnobiological, and museum collections research, involving cases from across North America. Strong theoretical links among realms such as belief systems, ecology, landscape, gender, and colonialism are expressed. Theory emerges from a grounded approach to indigenous concerns and the educational use and preservation of anthropological museum collections.

**[7] SYMPOSIUM • THE PEOPLING OF SOUTH AMERICA: A CRITICAL REVIEW AND CURRENT TRENDS  
(PART I)**

*(Sponsored by SAA Committee on the Americas)*

South American archaeology is becoming a crucial player in the debate of the initial colonization of the Americas. This symposium aims to assemble a group of scholars focusing on the initial colonization of South America from different perspectives, and to contribute for the development of productive ways to discuss the peopling of the Americas in general, and South America in specific, by bringing together (a) several lines of up-to-date evidence and reviews of regional

empirical data, (b) a gamut of theoretical approaches, and (c) interdisciplinary studies. Hopefully this symposium will be a medium for the exchange of ideas between scholars from all the Americas and beyond.



**[8] SYMPOSIUM • THEORIZING PLACE IN ARCHAEOLOGY: PROSPECTS AND POTENTIALITIES (PART I)**

This session will use detailed archaeological case studies to explicitly address the concept of place and explore its potential for archaeological research. Papers will focus on three sets of questions: 1) What is place, and how might this concept be operationalized to address archaeological questions? 2) What is the nature of the relationship between place and issues of identity, memory, meaning and experience? and 3) How did people at particular moments in history create and recreate places, and in what ways did the places they created shape their everyday lived experiences?

**[9] GENERAL SESSION • ARCHAEOLOGY IN THE ARCTIC AND SUBARCTIC****[10] SYMPOSIUM • LEARNING IN PLACE: TEACHING IN REPLICATED STRUCTURES**

*(Sponsored by SAA Public Education Committee)*

Replicated structures and reconstructions can be texturally rich environments for teaching about the human past. This symposium examines the various educational issues and professional responsibilities that must be considered in the development and building of such sites, as well as in the design of public programs and curricula. Examples from various locations and time periods provide insight into the roles that replicas and reconstructions play in conceptual development. Included in this discussion are their power as images, as multi-sensory learning environments, and as a context for understanding past human activity.

**[11] SYMPOSIUM • HISTORICAL ARCHAEOLOGIES OF THE INLAND NORTHWEST**

When the typical student studies North American archaeology in the western United States they get a great deal of exposure to the pre-Columbian west, that is life before contact. What has been profoundly under-represented is the archaeological understanding of the west after Contact. This is a session which explores the archaeological histories of the west after Contact, that is it is an exploration of African-American, Asian-American and Euro-American in both urban and rural contexts in nineteenth and twentieth century Idaho.

**[12] SYMPOSIUM • LOWLAND MAYA SETTLEMENT PATTERN STUDIES: TECHNOLOGICAL TRANSFORMATIONS AND A WEALTH OF DATA**

This session will bring together scholars from projects across the Maya lowlands to critically focus on the impact technological advancements have had on the field of Maya settlement pattern studies in the past two decades. Papers presented will address one or more of the following topics: 1) Ground Survey, including GIS and GPS; 2) Remote Sensing; 3) Sampling Methods and Strategies; Data Standards. This symposium is the first step in specifically detailing the advancements in lowland Maya settlement pattern studies as we move into the twenty-first century.

**[13] SYMPOSIUM • THE TIES THAT BIND: COMPARATIVE BOUNDARY AREA DYNAMICS IN POSTCLASSIC MESOAMERICA**

Postclassic Mesoamerican boundary dynamics are the focus of this symposium. We will examine the multidimensionality and permeability of boundary areas throughout Mesoamerica, and how interactions between polities of varying socio-political organization compared. Archaeological boundaries are often considered in relation to imperial expansion, but knowledge of boundary processes less directly associated with empires is lacking. Understanding interactions occurring in the marginal areas between groups of varying scale and arrangement is especially important to interregional cultural trends because locally-based networks played a role in paving the way for pan-regional integrative processes of the Mesoamerican Postclassic.

**[14] GENERAL SESSION • ARCHAEOLOGY IN ASIA****[15] SYMPOSIUM • POTTERY MOUND AND THE CULTURAL DYNAMICS OF PUEBLO IV**

The Pueblo IV site of Pottery Mound on the Rio Puerco of the east is famous for its spectacular kiva paintings. The site, with its inventory of both Western and Eastern Pueblo elements is of critical importance to our understanding of cultural dynamics during the Pueblo IV period in the Southwest. This session examines the significance of Pottery Mound in regard to regional interaction, possible migration, cultural (including ritual) exchange, and other social processes through architecture, ceramics, textiles, and the murals. The 50 years of archaeological investigations at the site are also reviewed.

**[16] FORUM • PRACTICAL APPLICATIONS OF LOW-LEVEL AERIAL PHOTOGRAPHY IN ARCHAEOLOGY (SO WHY AREN'T YOU USING IT?)**

Low-level aerial photography has been accessible to archaeologists for over 100 years. However, prohibitive costs, limited windows of opportunity, and difficulty in acquiring quality images have limited its place in the archaeologist's toolbox. Over the last ten years there have been radical improvements in technology, including: digital photography, GPS, GIS, and available platforms for near-earth reconnaissance. These advancements have broadened the applications of this technique and brought aerial archaeology within the grasp of cash-strapped projects. This forum will focus on how this technique can be better utilized in a broad range of applications, settings, and budgets.

**[17] GENERAL SESSION • THE PLAINS AND THE ROCKY MOUNTAINS****[18] SYMPOSIUM • CULTURAL ADAPTATION AND SOCIOPOLITICAL DEVELOPMENT ON THE ANDEAN COAST**

The Andean coast has sustained the development of the earliest complex societies in the New World. This is due in part to abundant resource potentials within a generally favorable and stable climate, but also to the ingenuity of Andean coastal communities. This symposium examines the cultural adaptations and concurrent sociopolitical developments that have nurtured the growth of complex societies on the Andean coast for the past 4000 years. A comparative, diachronic approach will emphasize the diversity of cultures and adaptational strategies that have arisen in coastal valleys from northern Chile to Peru and Ecuador, while recognizing a similar geographical configuration.

**[19] SYMPOSIUM • THEORY, HISTORY, AND ARCHAEOLOGY: EXPLAINING VARIABILITY AND CONTINUITY AMONG THE CALIFORNIA ISLANDS**

Since their definition maritime hunter-gatherers have remained problematic for those attempting to provide a unified theory explaining variability across the range of hunter-gatherer societies. This session brings together diverse perspectives on the California Islands, with emphasis on variability and continuity in the natural and cultural systems that characterize these islands. New data and insights are discussed along with the merits and weaknesses of various explanatory models within the particular contexts investigated by the participants. The goal is to utilize the rich and varied data sets of these islands to consider the maritime hunter-gatherer experience through integrated perspectives.

**[20] SYMPOSIUM • SITUATING ARCHAEOLOGY WITHIN THE POSTCOLONIAL CONDITION**

Postcolonial theory questions the histories, literatures, and anthropologies produced by the Western academic canon, asserting that traditional studies generated within colonial contexts distort the experiences, alter the realities, and inscribe inferiority onto colonized peoples. We challenge American archaeologists to critically situate themselves in a postcolonial context. What is the place of archaeology in postcolonial studies? Is archaeology a colonial endeavor by definition, or can material culture be used to counter dominant histories? How does archaeology enable postcolonial peoples to articulate their identities? This session attempts to address these questions and highlights the distorted junctures at which American archaeologists practicing in postcolonial conditions find themselves today.

**[21] SYMPOSIUM • ARCHAEOLOGICAL RESIDUE ANALYSIS; PART I: THEORY**

The two sessions of this symposium aim to provide an overview of the problems and possibilities of collecting data on organic residues in archaeological materials. A variety of techniques will be discussed, as well as the results of the analysis of the same, experimental residue by several laboratories (the 'round robin' experiment). At the end of each session a short debate between the speakers and the audience will be mediated by two discussants.

**[22] GENERAL SESSION • POLITICS, FEASTING, GENDER, AND SYMBOLISM IN THE SOUTHWEST****[23] SYMPOSIUM • FROM ANTHILLS TO HORSE MANURE: PROVENANCE CHARACTERIZATION OF SAND-TEMPERED CERAMICS FROM THE AMERICAN SOUTHWEST**

Petrographic analysis of rock and mineral temper has been used to characterize pottery provenance for more than a century. With the advent of standardized point counting methods in the 1950s, statistical comparison of temper to potential geologic sources became possible. The petrofacies method developed since the 1980s provided another leap forward, as multivariate statistical techniques were available to classify provenance. Symposium papers demonstrate the application of petrographic methods to pottery provenance characterization. Examples include the

full range of petrographic techniques, from initial descriptive characterization to petrofacies provenance analysis, with an emphasis on how detailed petrographic information enhances archaeological interpretation.

**[23A] PRESIDENT'S INVITED FORUM: THE IMPACT OF POSTMODERNISM ON AMERICAN ARCHAEOLOGY: THE GOOD, THE BAD, AND THE JURY IS STILL OUT**

Like most academic disciplines, archaeology has, over the past 20 years, been influenced by Postmodernism. The degree of that influence and perceptions about the positive or negative consequences of that influence vary. Given the basic premise of Postmodernism, that objectivity—in our case, objectivity in creating knowledge of past human societies—does not exist, some may find it surprising that there has been any influence at all! Nevertheless, Postmodernism is, for good or ill, a prominent feature of the American archaeological landscape. The forum participants will discuss the positive impacts of this school of thought and the negative impacts, as well as those areas of our discipline where it is still too soon to determine whether the impacts will ultimately be salutary or pernicious.

**[24] POSTER SESSION • THE STORIES BEHIND THE NUMBERS: GENDERED PERCEPTIONS OF ARCHAEOLOGY AMONG ITS PRACTITIONERS**

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

The recent SAA Member Needs Assessment Survey included a series of questions sponsored by the Committee for the Status of Women in Archaeology. These questions focused on several issues for women in archaeology including publishing, funding, and conference opportunities; sexism and the glass ceiling syndrome in the workplace; and juggling a family and a career. The purpose of this poster session is to explore the gendered perception of archaeology, and to share the experiences of women and men as professional practitioners. It is hoped that this session will create space for a dialog about issues for women in archaeology.

**[25] POSTER SESSION • TECHNICAL ANALYSES**

**[26] POSTER SESSION • GREAT BASIN, CALIFORNIA, AND THE NORTHWEST**

**[27] POSTER SESSION • PLAINS AND ROCKY MOUNTAINS**

**[28] POSTER SESSION • ARCTIC AND SUBARCTIC**

**[29] SYMPOSIUM • FOR THE DIRECTOR II: RESEARCH PAPERS ON ENGAGED ARCHAEOLOGY AND MUSEOLOGY IN HONOR OF RICHARD I. FORD (PART II)**

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history create and recreate places, and in what ways did the places they created shape their everyday lived experiences?

**[32] SYMPOSIUM • ANCIENT FOOTPATHS, THE CONSTRUCTION OF MEANING, AND THE ORIGINS OF MONUMENTALITY IN COSTA RICA**

The Proyecto Prehistorico Arenal in Costa Rica used NASA remote sensing with field verification by trenching and stratigraphy to confirm two sets of ancient footpaths in 2002-2004. A primary objective was largely met: determine endpoints and explore the reasons why people used particular paths. Endpoints include cemeteries, villages, springs, and stone sources for tomb construction. Sustained path use had the unanticipated consequence of deep entrenchment, which evidently became the culturally desired mode of entry into special places. We may have discovered the egalitarian origins of the monumental entrenched entryways built by later complex societies such as Cutris and Guayabo.

**[33] SYMPOSIUM • HOW DO WE SAVE THE ORPHANS: WORKING WITH ABANDONED (OR HOMELESS) COLLECTIONS**

*(Sponsored by SAA Committee on Curation and SAA Ethics Committee)*

One of the biggest problems in collections management is how to deal with orphaned collections—cultural artifacts that have no one to fund their curation and are in danger of being lost. Such materials become homeless in several ways: consulting firms go out of business; cultural resource branches are closed by large parent corporations; professors retire or pass away leaving their research without any provision for their continued care. Within this session we explore the magnitude of this issue and innovative ways of solving this problem.

**[34] FORUM • POPULARIZING THE ANCIENT SOUTHWEST: ARE WE PRESERVATION PARTNERS OR ACCESSORIES TO A CRIME?**

Public interest in the ancient American Southwest is fueled by the works of writers, artists, educators, and a growing number of back country guide services. Many archaeologists believe that publicity generated by these popular media benefits resource stewardship by increasing public awareness and support for the preservation of archaeological sites. Others maintain that these activities draw unnecessary attention to unprotected archaeological sites, which ultimately leads to their destruction from unmanaged visitation and deliberate vandalism. This forum will explore the pros and cons of this controversial topic through a series of brief presentations representing diverse viewpoints, followed by a moderated discussion.

**[35] SYMPOSIUM • CIRCLES, SYMBOLISM, AND SPACE: THE DISTRIBUTION AND MEANING OF CIRCLES IN THE ARCHAEOLOGICAL AND ETHNOGRAPHIC RECORDS**

This symposium explores the function, heuristic, and symbolic meanings of circular archaeological and ethnohistoric features. Southern Great Basin and Sonoran Desert sites are often dominated by circular features, yet these features are enigmatic: they are rarely associated with artifacts, yet are widely distributed throughout the region. Circular patterns are also one of the most common motifs in prehistoric "art." Native American participants explain why and how the circle is symbolically central to their belief systems. Archaeologists examine the distribution and function of circular features and circular rock art motifs. Together these viewpoints provide new insights into poorly understood phenomena.

**[36] SYMPOSIUM • ARCHAEOLOGY IN IDAHO: RESEARCH, PARTNERSHIPS, AND VOLUNTEERS**

Archaeologists in Idaho continue to make strides in understanding how people lived in the state for the past 14,000 years. These presentations will highlight recent work that includes inventory projects on rock art sites, excavation of sites along the Clearwater River, an examination of the archaeology of the Nez Perce War, and a re-analysis of information from the Challis Bison Jump. Partnerships with universities, preservation groups, and agencies, and the cadre of experienced volunteers are instrumental in helping archaeologists meet the goals of these varied projects.

**[37] FORUM • THE ARCHAEOLOGICAL GRAY LITERATURE**

*(Sponsored by SAA Committee on Curation)*

Gray literature is unpublished, has limited circulation, is rarely cataloged in libraries and, therefore, is often difficult to find. Archaeologists produce thousands of gray literature reports each year, while at the same time hundreds of older reports are lost. This forum will initiate discussion of and explore options for providing access to the constantly growing body of archaeological gray literature. Issues include access, sensitivity of information, quality control of content, electronic publishing, archiving, and how to build on the National Archeological Database

Reports module. Private contractors, academics, SHPOs, and the federal government will be represented.

**[38] SYMPOSIUM • AGENCY WITHIN THE PERIPHERY: VIEWS FROM ACROSS THE GLOBE**

The concept of interaction has a long and varied history in archaeological theory. However, the focus has generally been on core areas, or has approached "peripheral" areas from a centric perspective. Studies here explore traditionally peripheral areas, located in both the New and Old Worlds, and how concepts of interaction have changed. The emphasis is on group agency and identity to explain the complexity of material culture, rather than on cultural-historic views based upon concepts of diffusion, the movement of intrusive groups, or ecology.

**[39] SYMPOSIUM • INDIGENOUS ARCHAEOLOGY AT THE TROWEL'S EDGE: FIELD SCHOOLS, PEDAGOGY, AND COLLABORATION**

*(Sponsored by SAA Committee on Native American Relations and SAA Committee on Curriculum)*

This session considers the nature of indigenous archaeology and collaborations between archaeological and Native American/First Nations communities in the context of field schools and similar venues of practical archaeology training. Participants will address the role of field classes, particularly tribally-sponsored ones, in indigenous archaeology, the ways that collaborative field schools and training classes can and should directly benefit tribal communities, and the changes in methodological and pedagogical field techniques that have resulted from collaboration. The session contends that we must scrutinize not just how we think about and do archaeology, but also how we teach and learn it.

**[40] GENERAL SESSION • MIDWEST AND GREAT LAKES ARCHAEOLOGY**

**[41] WORKING GROUP • THE LATE POSTCLASSIC-COLONIAL MAYA TRANSITION: CURRENT RESEARCH AND NEW PERSPECTIVES**

Spanish conquest brought great changes across the entire Maya area, although certain Maya groups experienced substantial Spanish influence, while others were contacted rarely, or actively resisted conquest. The variable nature of the contact affected Maya lives differently in distinct regions, and caused different degrees of archaeological change between the Postclassic and the Colonial periods. Participants will discuss recent fieldwork from Honduras, Belize, Yucatan, and Guatemala in an attempt to update our understanding of the Colonial transition. They will build upon Postclassic-Colonial Maya research from the past three decades, while engaging with current method and theory, such as household archaeology.

**[42] SYMPOSIUM • CRAFTING SOCIETY: MATERIALS TECHNOLOGIES OF COMPLEX SOCIETIES IN THE OLD AND NEW WORLDS**

Materials and the way people manage them are an integral part of the human experience. Materials and the technologies they foster both influence and are influenced by culture. In making choices within the constraints imposed by the physical properties of materials, people develop technologies grounded in and which express technological needs and social values. We explore in this symposium the synergistic relationships between societies and their materials technologies, encompassing both a wide array of materials and varied approaches to their study.

**[43] SYMPOSIUM • RETHINKING RAIN FOREST OCCUPATION: NEW RESEARCH DIRECTIONS IN TROPICAL ARCHAEOLOGY**

*(Sponsored by Archaeology Division, American Anthropological Association)*

This symposium will explore new developments in the theoretical, archaeological, and ecological understanding of the prehistoric occupation of low latitude rain forest habitats. Common themes of paleoecology, environmental change, subsistence strategies, agriculture/arboriculture, and sociocomplexity are examined with respect to inferring the nature of human adaptation, food procurement, settlement, and habitat modification that may have occurred during the late Pleistocene and Holocene periods. Interdisciplinary approaches are emphasized and new methodologies examined. Local and regional case studies from Australasia, Africa, and the Americas will be presented and discussed.

**[44] SYMPOSIUM • THE MEDITERRANEAN FROM 50,000 TO 25,000 BP: TURNING POINTS AND NEW DIRECTIONS**

This symposium addresses the Middle to Upper Paleolithic transition in the Mediterranean region, through the examination of the nature and extent of behavioral changes and differences from



50,000 to 25,000 BP. It is an attempt to bring together archaeologists who do research in different parts of the Mediterranean littoral, and on theoretical perspectives, to compare and discuss results from the various areas. We hope to gain a retrospective on this issue, assess how the subject is being studied at present, the latest results and current knowledge, and propose guidelines that will mark this research in the coming years.

**[45] SYMPOSIUM • ANCIENT APPRENTICESHIP**

Learning a craft, a physical learning process, is based on observation, imitation and most importantly, repetition. This symposium concentrates on the types of knowledge and the methods of knowledge transfer by craftsmen in the social context of learning. Subjects that will be covered are: how do we recognize the work of apprenticeship or evidence of learning in the archaeological material; what are the social aspects of knowledge transfer in relation to social mobility; engendering knowledge transfer; the epistemology of craftsmanship and lastly, the use of insights gained by discerning different types of knowledge and learning in teaching archaeology.

**[46] SYMPOSIUM • ARCHAEOLOGICAL RESIDUE ANALYSIS; PART II: PRACTICE**

The two sessions of this symposium aim to provide an overview of the problems and possibilities of collecting data on organic residues in archaeological materials. A variety of techniques will be discussed, as well as the results of the analysis of the same, experimental residue by several laboratories (the 'round robin' experiment). At the end of each session a short debate between the speakers and the audience will be mediated by two discussants.

**[47] SYMPOSIUM • ARCHAEOLOGICAL STUDIES OF COOKING AND FOOD PREPARATION**

We typically view cooking as an individual activity of little social value, and as something that takes place in private domestic spaces, largely disconnected from political life and our social worlds. But several archaeological, ethnographic, and sociological studies in the past decades clearly point to cooking as an activity with important social consequences. In this panel we present a variety of case studies from different areas of the world that examine the social, economic, and political aspects of cooking by drawing from diverse lines of archaeological and historical evidence.

**[48] SYMPOSIUM • USING NUCLEAR CHEMISTRY TO ANSWER CULTURAL QUESTIONS: RECENT APPLICATIONS OF INAA IN THE AMERICAN SOUTHWEST**

Archaeologists have increasingly turned to the physical sciences for reliable chemistry-based analytical techniques to match artifacts with raw-material sources. In the American Southwest, we have reached a watershed moment in the application of one such technique, instrumental neutron activation, moving beyond the analysis of data from small, individual projects to the creation of large databases with multiple researchers. These larger databases enable the researchers in this session to investigate broad anthropological topics such as the mobility patterns and migrations of people, cultural responses to conflict and stress, community social organization, the development of craft production and specialization, and the use of ceramics in the creation and maintenance of social boundaries and identity.

**[49] POSTER SESSION • SOUTH AMERICA**

**[50] POSTER SESSION • MESOAMERICA AND CENTRAL AMERICA**

**[51] POSTER SESSION • PALEOINDIAN**

**[52] POSTER SESSION • CHACO AND POST-CHACO IN THE NORTHERN SAN JUAN REGION: THE BLUFF/COMB WASH PROJECT**

Chaco-style great houses have long been recognized in the northern San Juan region, although the nature of influence from Chaco Canyon is debated. Even though the Chacoan regional system ended about A.D. 1150, some great houses in the northern San Juan continued in use until the late 1300s. University of Colorado investigations focus on Chaco/post-Chaco patterns in SE Utah at the Bluff Great House and Comb Wash Community. Our posters explore continuity in Chacoan architecture, settlement patterns, and landscape features, as well as changes in great house function and the role of great kivas as a ritual focus.

**[53] POSTER SYMPOSIUM • ARCHAEOCLIMATOLOGY AND PEOPLE: THE CONTEXTS FOR CULTURES**

Archaeoclimatic models provide a look at the past environment that can be "ground truthed" by comparison with many physical records, such as stratigraphic pollen and phytolith analyses. In addition, understanding the past climate and environment assists in understanding movement of

peoples, adaptation of people to their local environment, use of resources, decision making parameters, and much more. This poster symposium presents a variety of applications of Archaeoclimatic modeling.

**[54] SYMPOSIUM • ORGANIZED VIOLENCE IN PRECOLUMBIAN AMERICA**

The categories of sport, mock combat, warfare, and ritual have largely controlled the discourse on organized violence in the Precolumbian Americas. Scholarly attitudes toward the relations of these categories shade from intimately interrelated to mutually exclusive. This session proposes to lay open these categories and their relations for inspection. How do the analytical categories we use to construct Ancient American history relate to indigenous notions of organized violence? How do these categories relate to other areas of Precolumbian thought and practice? What are the limits and rewards of ethnohistorical data on violence?

**[55] SYMPOSIUM • CONTEMPORARY PERSPECTIVES IN CHINESE NEOLITHIC ARCHAEOLOGY**

Nearly twenty years ago, the publication of the fourth edition of K.C. Chang's "The Archaeology of Ancient China" marked the beginning of a new era in the study of Chinese Neolithic archaeology. Since that time, much new information on the Chinese Neolithic has accumulated. In this symposium, scholars working in different regions across China will discuss the construction of new models for Chinese Neolithic societies (operative at a variety of scales) and the empirical evaluation of these models, applying new analytical approaches and adopting comparative perspectives.

**[56] SYMPOSIUM • FOURTH MILLENNIUM B.P. ADOPTION OF DOMESTICATED MAIZE AND SQUASH IN THE NORTH AMERICAN SOUTHWEST: THE ASSEMBLAGE FROM MCEUEN CAVE, SOUTHEASTERN ARIZONA**

McEuen Cave, a Late Middle Archaic through Early Agricultural dry residential rockshelter in southeastern Arizona has yielded 23 *Zea mays* and *Cucurbita pepo* remains dating between 3491 and 4360 radiocarbon years (RCY) B.P. There can be no doubt that maize and squash arrived in the Southwest by 4000 dendrocalibrated years B.P., during a time dominated by a hunter-gatherer lifeway. The symposium examines these new data as well as the material assemblage of McEuen Cave in relation to other Archaic sites in the Southwest and northern Mexico. The session will end with various interpretive ideas by the principals.

**[57] GENERAL SESSION • ARCHAEOLOGY IN OCEANIA**

**[58] SYMPOSIUM • FINE PASTE RELIEF WARES OF ANCIENT MESOAMERICA**

Fine paste wares are part of a wide-spread cultural phenomenon during the latter part of the first millennium. Pabellon Molded-carved ceramics have been considered a marker of the Classic Maya collapse. Traditionally associated with "foreign" influences, archaeologists now place the production of Pabellon well within the Pasion drainage. But what is the relationship between Pabellon and other fine paste relief wares, including Rio Blanco from Veracruz, imitation Pabellon wares from Yucatan, and similar wares found at Teotihuacan? Using approaches from archaeology, art history, iconography, and epigraphy, this session explores the origins, composition, and distribution of Mesoamerican fine paste relief wares, seeking new answers to old questions to create a fresh synthesis.

**[59] SYMPOSIUM • COMIC BOOK AND CARTOON ARCHAEOLOGY**

This session brings together creators and publishers of archaeology comic books, cartoons, and zines to discuss their individual works as well as present a theoretical overview of this part of the discipline. Their presentations are rooted within the visual and public archaeologies, recount individual methodologies that serve as useful guides for others, and show how comic books and related genre are fundamental to the goals of archaeology. This session serves both those interested in the state of comic book and cartoon archaeology today and those who hope to use such works to shape the future of the discipline.

**[60] GENERAL SESSION • TECHNICAL INNOVATIONS AND ISSUES**

**[61] FORUM • TURNING DATA INTO KNOWLEDGE: MOVING PRIMARY FIELD DATA TO AN OPEN KNOWLEDGE COMMONS**

*(Sponsored by The William and Flora Hewlett Foundation)*

This forum explores how we can better use, reuse, share, understand, and value primary field documentation. We will discuss: (1) Methods of sharing diverse data and media generated from widely-varying research agendas; (2) Preservation imperatives; (3) Intellectual property and professional incentives for sharing data; (4) How an "open knowledge" commons (with relaxed

copyright restrictions) intersects with other cultural heritage interests/stakeholders; (5) How open knowledge resources can encourage innovative research, instruction, and public engagement with the past. We focus on ways to develop community and collaborations, encourage transparency in knowledge building, and how "digital heritage" can benefit local communities.

**[62] GENERAL SESSION • PALEOLITHIC EUROPE**

**[63] SYMPOSIUM • HISTORICAL ARCHAEOLOGY OF, BY, AND ABOUT THE MORMONS**

Historical Archaeology on Mormon-occupied sites began in the early 1960s with Church-sponsored excavations at the historic city of Nauvoo, Illinois. Since then, archaeologists both inside and outside the Church have conducted numerous excavations at Mormon-occupied sites throughout the United States. This session highlights some of the most important of these excavations, illustrating the contributions archaeological investigations have made to a more complete understanding of the Mormon past. At the same time, these papers examine and demonstrate the theoretical and methodological differences that exist between excavations sponsored by a religious organization and those conducted by academic, museum, and CRM archaeologists.

**[64] SYMPOSIUM • FINDING THE OVERLOOKED: EXPLORING SMALLER SOCIAL AND ETHNIC GROUPS IN THE ARCHAEOLOGICAL RECORD**

*(Sponsored by SAA Student Affairs Committee)*

In recent years, archaeologists have focused on the study of social and ethnic identities, and in particular, archaeologists have sought to include groups previously excluded from narratives about the past. Archaeologists have found the line of material evidence marking different social or ethnic units is frequently blurred and that the identity of a member of a group can be renegotiated in relation to that person's surroundings. This state of affairs raises several questions about the study of small social and ethnic groups. Papers in this session will address theoretical and methodological approaches to these issues through several case studies.

**[65] FORUM • WAR AND PEACE: THE FATE OF CULTURAL RESOURCES IN IRAQ**

*(Sponsored by SAA Government Affairs Committee)*

The looting of Iraqi museums and archaeological sites during and after the March 2003 invasion focused the world's attention on the problem of cultural resources theft and the key roles that government and the archaeological community play in the struggle to stem such destruction. This session will focus on how archaeologists worked with the U. S. Congress and the administration to protect Iraq's cultural heritage before and during the war and how archaeologists in Iraq and from around the world are rebuilding the institutions that preserve and interpret Iraq's past.

**[66] SYMPOSIUM • FROM CONQUEST TO CONVERGENCE: RECENT RESEARCH ON THE TRANSITION FROM INDIGENEOUS TO SPANISH RULE IN THE ANDES**

Archaeological study of the shift from indigenous to Spanish rule in the Andes lags far behind documentary inquiry. Yet, by moving outside of written texts, archaeological investigation is uniquely situated to contest, complement, and bypass the perspective of the colonizer inherent in documentary sources, and illustrate how colonialist pretensions to domination translated into local processes of cultural convergence, resistance, and adaptation. Building towards a comparative perspective on pre- and post-hispanic colonialism, this session brings together contact-era researchers working at several spatial and temporal scales to provide a preliminary panorama of these processes in a variety of regional locales.

**[67] SYMPOSIUM • THE PREHISTORY OF SHAMANISM: AN ARCHAEOLOGY OF DREAMS**

*(Sponsored by ICOMOS)*

Holistic archaeological research requires attention, not just to adaptation, economy and technology, but also to cognition and belief. Despite this fact, the archaeological study of religion remains underdeveloped. A logical starting point for such studies in the Americas is prehistoric shamanistic religions, because of the pervasiveness of this religious system throughout the hemisphere. Though commonly identified and studied using art and iconography, we look beyond these data sources alone to consider the evidence and implications of shamanistic beliefs, ritual practices and socio-politics in the larger archaeological record.

**[68] SYMPOSIUM • ETHNIC IDENTITIES IN THE INKA EMPIRE**

Recent concerns with identity in archaeology--particularly ethnic identity--represent a profound transformation in the problematics that underlie and motivate archaeological research in the post-processual era. With the rich body of evidence available for the late precolumbian Andes, we see

scholars in this area as having a significant contribution to make to current theoretical debates regarding the roots, meaning, and uses of ethnicity in both the past and present. The juxtaposition of ethnohistorical sources with the archaeological record of production, distribution, and stylistic variation offers fertile terrain for exploring the relationship between material culture and ethnicity.

**[69A] WORKSHOP ■ DEVELOPING AN ARCHAEOLOGICAL TEACHING TRUNK**

**[69B] WORKSHOP ■ CERAMIC CHARACTERIZATION 101: WHAT YOU NEED TO KNOW BEFORE YOU SPEND YOUR FIRST PROVENANCE ANALYSIS DOLLAR**

**[69] POSTER SESSION • SOUTHWEST I**

**[70] POSTER SESSION • ARCHAEOLOGICAL ANALYSIS IN THE NORTE CHICO, PERU**

Recent survey and excavations in the Norte Chico region of Peru demonstrate the application of detailed mapping, recording and analysis. These posters display the range of analyses carried out to date along with some of the techniques used in the field and in the lab.

**[71] POSTER SESSION • CHANGING SOCIAL AND ECOLOGICAL DYNAMICS ON THE WESTERN ALASKA PENINSULA AND ADJACENT ISLANDS**

Long-term multidimensional research on the Western Alaska Peninsula has focused on humans as part of the northern ecosystems where the modern and the prehistoric, the terrestrial and the marine, the local and the regional, and the empirical and theoretical are all interrelated. We suggest that this multidimensional approach is not only possible but necessary to our understanding of the North Pacific region. We suggest that through multifaceted social dynamics the Aleut conditioned the structure of complex ecosystems. They were not simple and passive harvesters, but were rather active participants in a regional system that included them at the top of the food chain. The implications of this type of approach are profound and require the integration of anthropology, archaeology, geology, ecology, and history, the perspective of all spatial and temporal scales, and the seamless merging of various theoretical approaches from the most humanistic to the most deterministic.

**[72] SYMPOSIUM • NEW PERSPECTIVES ON HUMAN SACRIFICE AND RITUAL BODY TREATMENTS IN ANCIENT MAYA SOCIETY**

The Symposium provides new information and novel perspectives on human sacrifice and ritual body treatments in ancient Maya society, addressing explicitly the discussion surrounding the cache-burial determination of depositions containing human remains and their ritual histories, along with the meanings and procedures that make up body parts interments. For this purpose, the contributions propose and apply a broad array of concepts that derive from epigraphy, art, literature and bioarchaeology. They encompass ritual behavior and meaning, marks of perimortem violence, posthumous heat exposure and body processing, provenience of sacrificial victims and their living conditions.

**[73] SYMPOSIUM • SUBSISTENCE AND POLITICAL ECONOMIES IN THE PETEN LAKES REGION: NEW INSIGHTS FROM MOTUL DE SAN JOSE, GUATEMALA**

Since 1998, multi-disciplinary investigations by the Motul de San Jose Project have been dedicated to assessing one of the key issues in Maya archaeology: to what extent were Maya polities economically centralized or decentralized? This session explores this question through an examination of subsistence and political economies of the Motul de San Jose polity. Archaeological investigations at Motul and nearby sites document evidence for craft production, agricultural systems, and larger historical processes. Regional investigations focus on delineating the environmental and landscape parameters of the Motul polity. Combined, these investigations will present a complex mosaic of economic integration and interaction.

**[74] SYMPOSIUM • APPLIED INDIGENOUS ARCHAEOLOGY**

Applied indigenous archaeology uses archaeological knowledge to solve broader societal concerns relevant to indigenous people. Applying archaeology to benefit indigenous people can solve a variety of issues and concerns. Cultural resource management, NAGPRA, and land claims are usual focal points for applied indigenous archaeology. Increasingly, indigenous peoples have turned to archaeology to help solve issues of cultural preservation, education, reconstructing culture history, and developing museums and exhibits. These applied trends towards broader indigenous concerns are critical to the maintenance of cultural heritage while

also contributing to the discipline's ethical responsibility to the people whose ancestors we often study.

**[75] SYMPOSIUM • MONTANE SETTLEMENT AND RESOURCE EXPLOITATION BY PREHISTORIC FARMERS OF THE NORTH AMERICAN WEST**

Most archaeological discussions of high elevation montane use in the North American West center on hunter-gatherer seasonal rounds. In order to better understand how the introduction of staple crops affected perceptions of mountains and their resources, this symposium will examine prehistoric farmers and farming communities that utilized the mountain ranges of Utah and Arizona. Topics ranging from settlement and subsistence to paleonutrition will focus on the Fremont of northern and central Utah, the Anasazi of northwestern Arizona, and the Sinagua of north-central Arizona.

**[76] GENERAL SESSION • METHOD AND THEORY**

**[77] GENERAL SESSION • ARCHAEOLOGY IN AFRICA**

**[77A] WORKSHOP ■ PLANNED GIVING SEMINAR—YOUR “RESEARCH DESIGN” FOR THAT FINAL FIELD PROJECT**

**[78] SYMPOSIUM • THE LATE ACHEULIAN: A NEW INTERPRETATION FROM EASTERN JORDAN**

During the Pleistocene an inland lacustrine corridor comprising a chain of lake basins extended through Jordan and Syria. These basins were extensively exploited by *Homo erectus*, who left enormous Acheulian assemblages absolutely dominated by bifacial transept cleavers. The oasis sites document a pattern of hunting and butchery of savannah megafauna of the African realm. The symposium reviews current research on the Acheulian of the inland corridor and the implications of cleaver use for understanding the character of Acheulian assemblages and technology.

**[79] SYMPOSIUM • ROCK-ART, RESEARCH, AND INDIGENOUS COMMUNITIES**

One factor driving the current resurgence in rock-art studies is the rediscovered importance of ethnohistory/ethnography. Looking at ancient pictures, we are not obliged just to "gaze and guess": there are research approaches that increasingly give access to issues of meaning. Rock-art is also increasingly important to indigenous communities: marked on the very land, it is visibly more accessible than dirt archaeology. These happy new circumstances change the ways rock-art researchers go about their studies and the social context of their work. One is no longer the research scientist working to the academic agenda alone or the observations of analytical science alone.

**[80] SYMPOSIUM • APPLYING BIOLOGICAL PRINCIPLES TO EVOLUTIONARY PROBLEMS IN ARCHAEOLOGY**

In 1989, Robert Dunnell observed that archaeological mortuary complexes in the American Midwest coincided with fluctuating carrying capacity, and that evolutionary theory can account for that association. Since then, other publications have applied the "bet-hedging" model (as it is known in the biological literature) to the archaeological record, showing that temporally fluctuating environments are associated with dramatic changes in human energy expenditure across many classes of archaeological observable phenomena. These papers focus on further application of the model, with research ranging from reconstruction of fluctuating environments, to issues of classification, to the nature of cultural elaborations, and to demographic implications.

**[81] SYMPOSIUM • ARCHAEOLOGY, ART, AND ETHNOGENESIS IN MESOAMERICAN PREHISTORY: PAPERS IN HONOR OF GARETH W. LOWE**

Over his 40 year career of archaeological investigation in southern Mexico, Gareth Lowe conducted and promoted research at numerous Formative sites, Chiapa de Corzo and Izapa being the best known. Gareth had an amazing grasp of early ceramics and other artifacts, and he used his knowledge of archaeological minutia to understand the broad histories of first peoples, in particular, the ancient interactions among Mixe-Zoque (a.k.a., Olmecs) and Mayas. Papers in this session follow Lowe's concern for synthetic understandings of ancient peoples in southern Mesoamerica.

**[82] GENERAL SESSION • SOUTHWESTERN AGRICULTURE**

**[83] GENERAL SESSION • THE NEAR EAST AND EGYPT**

**[84] FORUM • THE PALIMPSEST IN GEOARCHAEOLOGY***(Sponsored by SAA Geoarchaeology Interest Group)*

The term 'palimpsest' describes the now widely acknowledged complexity of archaeological deposits. But palimpsests remain problematic because no consensus exists among archaeologists on how to analyze or interpret them. Palimpsests are often seen as disturbed deposits, contrasted with 'in situ,' 'living floor,' feature, or other deposits. Such practice, however, oversimplifies the reality of the archaeological record. A more nuanced concept of palimpsests is important for dealing with the archaeology of all locations and time periods. This Forum seeks that understanding, considering interpretations and methods that bridge both the reality of archaeological deposits and the goals of archaeology across the globe.

**[85] SYMPOSIUM • CASTING ROLES: ARE CASTE GROUPS VISIBLE IN THE ARCHAEOLOGICAL RECORD?**

Ethnographically, caste societies are a unique social form that is present throughout the world. Yet there has been little archaeological research focused on distinguishing the presence and development of caste groups in prehistory and history. In this symposium, we will present research from Africa and Asia that enlists archaeological, ethnoarchaeological, linguistic, and biological studies that bring to the forefront a variety of theoretical perspectives concerning whether caste groups as a form of identity are visible or not in the archaeological record.

**[86] SYMPOSIUM • GETTING OUR HANDS DIRTY: PUTTING FEMINIST THEORY INTO ARCHAEOLOGICAL PRACTICE**

Proliferation of conference sessions, articles, and books reaffirms that feminist perspectives have found their place within archaeology. Remaining at issue, however, is the applicability of these broad social theories, with foci ranging from gender studies to queer theory, to actual data. Consequently, our ability to relate feminism to the material remains of past human behaviors becomes ever more relevant. This session supplies a forum for scholars to apply feminist theories to specific case studies. Contributors address the question: 'How pertinent are feminist understandings of sex, gender, identity and difference to our research, given the limitations of empirical archaeological datasets?'

**[87] SYMPOSIUM • PRELIMINARY RESULTS FROM THE 2004 FIELD SEASON AT TIWANAKU, BOLIVIA**

This symposium presents the results of a multidisciplinary research program on the urban form and socio-political dynamics of the monumental site of Tiwanaku, Bolivia (AD 500-1000). This symposium presents recent data from the 2004 field season while revalorizing previous unpublished and underpublished research at the site. The results from this initial field season suggest that a complex relationship between residential and ritual areas characterized the urban core. This research highlights the value of geophysical survey, select excavations and micro-analysis as a quick and cost efficient method for developing a broad understanding of complex large-scale sites.

**[88] SYMPOSIUM • PALEOINDIAN OR PALEOARCHAIC? NEW INSIGHTS ON LATE PLEISTOCENE-EARLY HOLOCENE ARCHAEOLOGY IN THE GREAT BASIN**

Paleoindian/Paleoarchaic research in the Great Basin traditionally has been hampered by a lack of well-stratified, sealed sites with preserved organic material for reconstructing chronology, paleoecology, and foraging behaviors. New excavations, coupled with innovative analyses of floral, faunal, and surface lithic assemblages, are increasing our understanding of early human organization. The papers in this symposium address a series of questions: Was the Great Basin inhabited prior to 11,000 radiocarbon years ago? How are fluted and stemmed point technologies related? What foraging and land-use strategies characterized the region's early human inhabitants? How did climate change affect humans during the late Pleistocene-early Holocene?

**[89] SYMPOSIUM • THEORETICAL AND METHODOLOGICAL REQUIREMENTS FOR ARCHAEOLOGICAL SIMULATION**

For 30 years, simulation has been used in Archaeology to address a wide range of problems. While there has been a great deal of excellent simulation work done in the discipline, simulation in Archaeology has yet to become truly archaeological simulation. Building on last year's round table luncheon on progress in Archaeological simulation since 1970, the symposium will bring together scholars interested in answering the question: 'What are the theoretical and methodological requirements for a specifically archaeological application of computer simulation methods?' Each paper is expected to address this question from its author's individual perspective.

**[90] FORUM • PROFESSIONAL DEVELOPMENT AND ADVANCEMENT STRATEGIES IN THE APPLIED AND ACADEMIC SPHERES**

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

Junior professionals and others just thinking about entering the profession of archaeology have a wide range of opportunities available to them; however, the challenge is to know where to look and how to strategize for particular career tracks. The panelists in this forum represent a range of career tracks in archaeology and will discuss the various strategies they have used to advance in their respective careers. Discussion topics will include particular issues that women and other underrepresented groups in archaeology may face in their career paths, mentoring and networking, and creative strategies for dealing with professional barriers and setbacks.

**[91] GENERAL SESSION • MESOAMERICAN ARCHAEOLOGY I****[92] SYMPOSIUM • HUMANS, ENVIRONMENT, AND CULTURE IN THE NEAR EAST: THE LEGACY OF FRANK HOLE**

Since his seminal study of human ecology on the Deh Luran plain, Frank Hole has remained at the forefront of Near Eastern and anthropological archaeology. He has made paradigm-shifting contributions to essentially all of the major areas of archaeological investigation—from the first populations to the origins of agriculture and village life, to the emergence of social complexity. Hole's pioneering work in human landscapes plays a central role in our understanding of the prehistory of the Near East. This symposium honors the high standard of scholarship, innovation, international, and interdisciplinary breadth that have been the hallmarks of his career.

**[93] POSTER SESSION • EUROPE AND WESTERN ASIA****[94] POSTER SESSION • SOUTHWEST II****[95] POSTER SESSION • SOUTHEAST****[96] POSTER SYMPOSIUM • THE ARCHAEOLOGY TEACHING TRUNK: A VALUABLE TOOL FOR PUBLIC EDUCATION**

The archaeology teaching trunk or resource box is becoming an indispensable part of the archaeologist's public education toolkit. Today's teaching trunk not only addresses archaeological issues but connects students with human experiences and needs. Actual teaching trunks will be available for examination by conference participants. Presenters will be available to discuss how the trunks were created and used.

**[97] SYMPOSIUM • THE WEB OF LIFE: STRUCTURE, AGENCY, AND IDENTITY IN ANCIENT SOUTHWESTERN COMMUNITIES**

Communities, as the nexus for face-to-face social interactions, are an appropriate context in which to examine the interplay of structure and agency and the formation of social identities. Identity is constructed through daily practice that occurs in the context of community life. In part, identity is shaped by historically derived structure, but it is also something that is actively manipulated through the agency of individuals. This symposium examines structure, agency, and identity in ancestral Pueblo communities in the southwestern United States. Papers in this symposium explore this topic by analyzing social action within and between communities.

**[98] SYMPOSIUM • MOBILE FARMERS, MIGRANTS, AND PERMEABLE BOUNDARIES: PUTTING THE MOGOLLON RIM IN ARCHAEOLOGICAL PERSPECTIVE**

The Mogollon Rim is a prominent physiographic feature that coincides with contemporary political boundaries. During much of the past, however, the Rim region had mutable social boundaries. This symposium presents new research by the Silver Creek Archaeological Research Project that discusses how this porous boundary was variably constructed at several times ranging from the Late Pithouse period to historic period Western Apache and Anglo settlements. Collectively, the papers show how residential mobility and migration combined to create socially dynamic landscapes in this pivotal area, and how this research is relevant to management issues important to the White Mountain Apache Tribe.

**[99] SYMPOSIUM • BETWEEN THE DEAD AND THE LIVING: CROSS-DISCIPLINARY AND DIACHRONIC VISIONS**

In this session we aim to (1) document varied manners in which the dead and the living interact in prehistoric and historic Latin America, and (2) illuminate their underlying beliefs and meanings from cross-disciplinary and diachronic perspectives. By bringing together scholars from a variety

of areas, we hope to gain synergetic insights into the enduring and varied articulation between the dead and the living. We are particularly interested in varied forms of interaction between them that can be archaeologically studied, such as tomb visitation and subsequent modification, as well as anthropologically documented events such as feasting, dance, and sacrifice.

**[100] GENERAL SESSION • TOPICS IN EUROPEAN ARCHAEOLOGY**

**[101] GENERAL SESSION • ARCHAEOLOGY IN THE PACIFIC NORTHWEST**

**[102] SYMPOSIUM • FIFTEEN YEARS OF REPATRIATION AT THE SMITHSONIAN'S NATIONAL MUSEUM OF NATURAL HISTORY**

The Repatriation Office at the National Museum of Natural History was created in 1991 to implement the repatriation provisions of the 1989 National Museum of American Indian Act. The Act requires the Smithsonian to repatriate human remains and funerary objects, and by a 1996 amendment, sacred objects and objects of cultural patrimony. Over the past fifteen years, the museum has conducted more repatriations than any other institution. This session reviews the accomplishments of the museum in meeting the legislative mandate and examines how repatriation has brought about change at the museum.

**[103] SYMPOSIUM • A GLIMPSE OF SOCIO-CULTURAL COMPLEXITY AT THE BRIDGE RIVER SITE ON THE CANADIAN PLATEAU (1700 BP- 200BP)**

The Bridge River Site located in south-central British Columbia, Canada is a complex hunter-gatherer site on the interior Canadian Plateau. The site consists of 80 pithouses and at least 150 external pit features that have yielded an extensive array of artifacts, shedding light on the emergence of socio-cultural complexity of the region. This symposium will take a multidisciplinary approach to explore dating, stratigraphy, geophysical data, faunal, lithic and feature, formation, patterns and evolution of the site.

**[104] GENERAL SESSION • SOUTHWESTERN CERAMIC STUDIES**

**[105] SYMPOSIUM • DIACHRONIC PERSPECTIVES FROM THE GREAT BASIN: HIGHLIGHTS OF RECENT RESEARCH FROM THE KERN RIVER 2003 EXPANSION PIPELINE PROJECT**

The Kern River 2003 Expansion Pipeline traversed 717 miles, from southwestern Wyoming through Utah and Nevada to California, crossing sites representing several thousand years of prehistory. The archaeological project employed a wide variety of analyses, integrated with current research and theory, to define the range of cultural variation through time and space and to develop models of cultural adaptation to account for the defined variability. Important contributions are highlighted, addressing such topics as paleoenvironment, settlement and subsistence, lithic and storage technology, mobility patterns, craft specialization, technology, refinement of relative obsidian hydration dating chronology, thermoluminescence dating, and instrumental neutron activation analysis.

**[106] GENERAL SESSION • PALEOINDIANS AND THE PEOPLING OF THE AMERICAS**

**[107] SYMPOSIUM • STEWARDSHIP: PROMISES AND PERILS**

*(Sponsored by SAA Ethics Committee)*

Stewardship is the first principle enshrined in SAA's code of ethics. But what is the archaeology of this concept? How does it apply to academic, CRM, museum and indigenous practice? Does it, like 'heritage,' potentially mask issues of ownership and power? Can it foster useful connections with other disciplines? Ever since William Morris and John Ruskin desired to counter the Industrial Revolution's ecological devastation, the notion of a 'commons' has influenced our notions of responsibility towards nature and culture. How does the war in Iraq and Kennewick dispute help us realize the promise and perils of this concept?

**[108] GENERAL SESSION • ARCHAEOLOGY IN BELIZE**

**[109] SYMPOSIUM • QUARTZ AND QUARTZITE TECHNOLOGY: PROBLEMS IN EXTRACTION, PROVENANCE STUDIES, AND NOMENCLATURE**

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

The realm of quartz, quartzite and associated technologies present investigators with a problem of field and laboratory differentiation. They are separate and discrete; yet overlap at certain times genetically and in terms of petrography and chemical characteristics. This poses problems in



differentiating their extraction, quarrying techniques, manufacturing technology, provenance, and use (such as mining tools and groundstone). The session addresses issues of the origin and genetic aspects of quartz veins, quartzites, and mylonitic rocks. In this session, special attention is given to field relations, mining technology, as well as petrographic, petrofabric, and chemical characterization.

**[110] SYMPOSIUM • FORMULATION OF HERITAGE IN OVERTLY POLITICIZED ENVIRONMENTS**

The process of archaeology-based heritage formulation is frequently a political action. As such, the archaeological record is appropriated in various ways to promote, advance, and achieve political goals. When such processes occur in overtly politicized environments, the political stakes are high and the costs for engagement are significant because of consequences that far transcend the boundaries of academia. The session will explore dynamic models that are inherent to the process, while emphasizing origin and agents of change, both from outside and within groups.

**[111] SYMPOSIUM • UNRAVELING THE BOUNDARY: PERISHABLE TECHNOLOGIES ACROSS AND BETWEEN THE PREHISTORIC GREAT BASIN AND SOUTHWEST**

*(Sponsored by SAA Fiber Perishables Interest Group)*

Fiber-based technologies are culturally sensitive and thus offer an opportunity to examine social change through time and space and to clarify shifting cultural boundaries. Significant numbers of perishables have been recovered from sites in the Great Basin and Southwest cultural provinces. Despite their proximity, archaeologists in one region often are not aware of current research in the other. This becomes an issue when examining material culture along the porous border that separates the two. This symposium considers recent research exploring issues of technology, chronology and identity to stimulate discussion of social interaction across the Great basin - Southwest boundary.

**[112] SYMPOSIUM • CAVES AND SETTLEMENT: THE SOCIO-RELIGIOUS CONTEXT OF MESOAMERICAN CAVE USE**

The development of a self-conscious sub-discipline of cave archaeology over the last decade has led to more robust discussions of social, political and religious ideology in ancient Mesoamerican societies. As purely ceremonial contexts, caves are ideal laboratories for examining social and political relations, which are often celebrated in or contested through ritual. This session brings together the latest cave research and related ritual studies in which the interpretative focus is clearly on the wider social context in which the activities occurred.

**[113] ARCHAEOLOGY AND PUBLIC EDUCATION: FIFTEEN YEARS OF RESEARCH AND RESULTS**

*(Sponsored by SAA Public Education Committee)*

Archaeologists have long educated the interested public and school children alike about their profession. The past 15 years, however, have witnessed a dramatic increase in programming as archaeologists struggle to instill the stewardship ethic with ever dwindling resources. Significantly, evaluation and research have helped us improve mature education programs. Public education now helps shape archaeological research itself and the presentation of results. The symposium will examine the history of archaeology education, the research and evaluation behind programming, and the emergence of archaeology education as a viable subdiscipline.

**[114] SYMPOSIUM • INTERSECTIONS AND EXCHANGES: THEORY AND PRACTICE IN CULTURE CONTACT RESEARCH**

'Culture contact' archaeology emerged during the Columbian Quincentenary as an alternative framework for archaeological studies of colonization and its outcomes. Today, culture contact archaeology has expanded to encompass a widespread range of intersections and exchanges between different cultures. Culture contact research also forges intersections and exchanges among scholars by challenging the divide between historic and prehistoric archaeology, by fostering interdisciplinary bridges between archaeology and other fields, and by encouraging dialogue and collaboration among archaeologists and native peoples. Through diverse presentations ranging from focused case-studies to theoretical queries, this symposium explores current research on 'culture contact' in archaeology.

**[115] FORUM • HOW SHOULD WE CONDUCT OURSELVES?: ETHICAL DILEMMAS IN ARCHAEOLOGY**

*(Sponsored by Register of Professional Archaeologists)*

During the Ethics Bowl students will debate issues currently faced by all archaeologists. This forum builds on the Ethics Bowl by providing the SAA membership at large an opportunity to

continue the discussion on such topics as the crisis in curation, repatriation of archaeological materials, tribal consultation, and the commercialism of archaeology. Sponsored by the Register of Professional Archaeologists in association with the American Cultural Resources Association and the SAA's Committee on Ethics, those attending the forum will be divided into small groups based on their topic of interest. The forum will reconvene and discuss the results.

**[116] GENERAL SESSION • MESOAMERICAN ARCHAEOLOGY II**

**[117] GENERAL SESSION • TEOTIHUACAN**

**[118] SYMPOSIUM • ARCHAEOLOGY AND GIS: OLD METHODS, NEW USES**

GIS research in archaeology has largely focused on making descriptive map displays and developing predictive models for site locations at a defined regional scale. However, GIS presents a powerful array of tools capable of much more elegant applications to archaeological problems. This session will be devoted to presenting research involved in other types of applications of Geographic Information Systems/Science to archaeological research. Special attention will be paid to GIS solutions addressing anthropologically derived behavioral questions.

**[119A] ARCHAEOLOGYLAND: HANDS-ON ACTIVITY SESSION FOR PUBLIC EDUCATION AND OUTREACH**

**[119] SYMPOSIUM • ARCHAEOLOGY, HISTORICAL ECOLOGY, AND HUMAN IMPACTS ON MARINE ENVIRONMENTS**

Archaeologists, ecologists, and other researchers have emphasized the importance of archaeology in understanding ancient environmental change, human impacts on biological communities, and the management of natural ecosystems. Numerous studies have used archaeological data to document human-induced environmental changes in terrestrial landscapes, but few have examined such processes in marine ecosystems, although coastlines often supported dense and relatively complex human populations. This session uses archaeological and historical case studies from well-studied coastal areas around the world to provide a deeper understanding of human impacts on marine ecosystems, the management of marine fisheries, and other current environmental issues.

**[120] SYMPOSIUM • A SOUTHERN CALIFORNIA-POLYNESIAN NEXUS?**

While the prevailing orthodoxy of North American archaeology discourages theories of transoceanic cultural diffusion, we consider in this session linguistic and archaeological evidence for direct cultural contact between Polynesia and southern California during the prehistoric era. Words used to refer to the distinctive sewn-plank canoe used by the Chumash and Gabrielino of southern California appear to correlate with Proto-Central Eastern Polynesian terms associated with woodworking and canoe construction. Archaeological findings suggest the appearance of sewn-plank boat construction was coeval with punctuated adaptive change and technological/stylistic shifts in southern California and a period of major Polynesian exploration. These ideas will be evaluated by a series of Polynesian and American specialists.

**[121] SYMPOSIUM • MACROEVOLUTION AND ARCHAEOLOGY: CONCEPTS AND APPLICATIONS**

Archaeology is the only academic discipline able to offer a comprehensive understanding of the human cultural experience from earliest to contemporary times. Yet, it still lacks a fully integrated evolutionary model that can provide insight into stability and change on all scales. This symposium seeks to explore concepts and models that permit the expansion of a Darwinian evolutionary approach to archaeology that includes the study of macroevolutionary scale change. Participants provide case studies that examine the differential persistence of cultural entities on multiple scales through time and across space. Concepts of reductionism, emergence, Bauplan, cladogenesis, and punctuated equilibria are explored.

**[122] SYMPOSIUM • EXAMINING THE HISTORICAL CONTEXT FOR THE ANTIQUITIES ACT, 1879-1906**

*(Sponsored by SAA Committee on Government Archaeology)*

A century ago the first national United States law for the protection of archaeological resources was enacted after nearly three decades of struggle (1879-1906). Two generations of advocates labored for the public protection and oversight of the treatment of American archaeological resources. Understanding the cultural, economic, and political factors that influenced the individuals and organizations engaged in development of the law provides a foundation for evaluating its effects during the 20th century. Examination of the historical context will illuminate how different interests were served and others ignored or surpassed by the law and policies embedded in its provisions.

**[123] SYMPOSIUM • CERRO JUAN DÍAZ (PANAMA): A TEN YEAR FIELD PROJECT IN A SEMINAL AREA FOR CHIEFDOM RESEARCH**

Central Panama (the culture area of Gran Coclé) is well-known to students of New World chiefdoms because regional mortuary sites corroborate contact-period accounts of wealth and rivalry among top-ranked social units and individuals. This area also stands out for its informative art style and excellent preservation of organic remains. A ten-year research program centered on the site of Cerro Juan Díaz, on the Pacific coast, has contributed much new information about subsistence, ritual, crafting, exchange, and social organization during the period 200 BC - AD 1600. On the one hand these archaeological data add substance to a topic that has traditionally depended heavily on ethnohistoric accounts and, on the other hand, they call into question some widely accepted hypotheses that pertain to the organization of ritual and social units and to local, regional and long-distance social networks.

**[124] GENERAL SESSION • NORTHEAST AND MID-ATLANTIC ARCHAEOLOGY****[125] SYMPOSIUM • A STEPPE BEYOND: ARCHAEOLOGY ON THE EASTERN STEPPES**

This session will bring together scholars involved in current research on and around the Eastern Steppes of Eurasia. Presentations will center on Early Pastoralism and the Emergence of Nomadic Complexity. Emphasis will be placed on new field work, theory, models and multidisciplinary research.

**[126] FORUM • ARCHAEOLOGY AS A PROCESS: PROCESSUALISM AND ITS PROGENY**

Processual archaeology produced what many today view as mainstream archaeology. Along the way, alternative approaches arose to challenge processualism-behavioral archaeology, human behavioral ecology, evolutionary archaeology, and postprocessualism among them. Besides being interesting in its own right, what does the history of American archaeology from roughly 1960 onward tell us about archaeology as a process? What does it tell us about the coalitions and alliances, the cooperation and competition, that drive any discipline? How do the formation of research groups and the social and intellectual interactions among them help or hinder which theories become accepted? Panelists in the forum, all of whom have played integral roles in setting the agenda for American archaeology, will draw on their personal involvement to address these and related questions posed by a group of panelists and the audience.

**[127] SYMPOSIUM • THE CONTRIBUTIONS OF AMATEURS/AVOCATIONALS TO ARCHAEOLOGY AND THE PURPOSE OF THE COUNCIL OF AFFILIATED SOCIETIES**

*(Sponsored by SAA Council of Affiliated Societies)*

Amateurs work with professionals in training programs, certification programs, stewardship programs, and in other innovative ways. But what has the SAA done to meet one of its By-laws objectives: to serve as a bond among those interested in American Archaeology, both professional and nonprofessional, and to aid in directing their efforts into scientific channels. One thing it has done is to establish the Council of Affiliated Societies: to ... benefit all societies in this field and to advance the practice of archaeology. Discussion at the end of the papers will revolve around how action can be breathed into this wishy-washy statement.

**[128] SYMPOSIUM • THE PRECERAMIC IN THE NORTE CHICO: NEW TECHNIQUES FOR SURVEY, EXCAVATION AND ANALYSIS**

The Norte Chico region of Peru has proved to be the center of the earliest monumental construction in the New World during the Preceramic period (3000-1800 BC). Application of GIS along with detailed recovery and recording methods has enhanced the number of sites identified, the accuracy of recording, and brings out critical details in the materials analyzed. This session presents results from research over the past three field seasons.

**[129] SYMPOSIUM • PLANNING, PRODUCTION, POWER, AND PYROTECHNICS: RECENT RESEARCH IN THE CACAULAPA AND CHAMELECON VALLEYS, NORTHWESTERN HONDURAS**

Recent research in the Cacaúlapa and Chamelecon valleys has greatly increased our understanding of the interplay among spatial patterning, ceramic, lithic, and copper production, and power in the region, addressing questions of identity and political organization. Excavation data from the centers of Las Canoas, El Coyote, and 11 rural settlements in their surrounding area, whose occupation extends from the Middle Preclassic period (800-400 B.C.) to historic times, combine to suggest how architecture and craft production-including a likely precolumbian copper workshop-were manipulated in shifting strategies of domination and affiliation.

**[130] SYMPOSIUM • CURRENT RESEARCH AND FUTURE DIRECTIONS IN ZOOARCHAEOLOGY**

Zooarchaeology became established as an important field of study within archaeology during the latter decades of the 20th century. The purpose of this symposium is to allow the 21st century's first generation of zooarchaeologists, whether they be presenters or audience members, to share ideas about the future of zooarchaeological research questions and methodologies. Each of the papers presented addresses a line of inquiry that the author believes will lead to substantive advances in our understanding of the human past. Audience involvement in discussions about the future of zooarchaeology will be encouraged during the session.

**[131] SYMPOSIUM • CHACOAN PERIOD COMMUNITY DEVELOPMENT IN THE ZUNI AREA**

During the Chacoan Period the Zuni area experienced a rise in population with a greater dispersion of peoples throughout the area as expressed by an increase in archaeological sites from this time period. The expansion may be linked to improved climatic conditions that enhanced opportunities for horticulture in previously marginal zones. Other explanations tie it to the rise and structure of the social/ceremonial organization that developed in Chaco Canyon. This session explores the nature of the community development from AD 1050 to AD 1150 from a variety of perspectives, such as household organization, ecology, gender, migration, and regional interaction.

**[132] SYMPOSIUM • THE PRACTICE OF ARCHAEOLOGY IN MEXICO: INSTITUTIONAL OBLIGATIONS AND SCIENTIFIC RESULTS**

*(Sponsored by The Board of Directors of the Society for American Archaeology and Instituto Nacional de Antropología e Historia)*

The purpose of this symposium is to offer American archaeologists an overview of current procedures and regulations applicable to undertaking projects in Mexico. It also addresses the most important contemporary problems in Mexican archaeology today. The symposium—organized by SAA and INAH—will be presented by several representatives from Mexico's National Institute of Anthropology and History's Council of Archaeology, recognizing the importance of assisting foreign archaeologists to follow the legal norms which define the development of archaeological projects in Mexico.

**[133] GENERAL SESSION • THE NEOLITHIC IN SOUTHWEST ASIA AND EUROPE****[134] SYMPOSIUM • THE PROBLEM OF THE 'INVISIBLE' MAYA: REVISITING THE EVIDENCE FOR PREHISPANIC MAYA INVISIBLE SETTLEMENT**

The existence of invisible Maya settlement is acknowledged as a potentially serious problem in Maya archaeology. Because of practical difficulties in locating evidence of invisible settlement, this settlement category, although it may be substantial, has not been systematically integrated into commonly accepted Maya settlement interpretations. Despite difficulties, some Maya scholars have persisted in efforts to examine the character, significance and extent of such remains. This session addresses the history of invisible settlement studies and presents current research using both traditional and innovative methodologies at a variety of sites. The research presented provides exciting approaches and promising directives for future efforts.

**[135] ELECTRONIC SYMPOSIUM • ACROSS THE GREAT DIVIDE: ETHNOARCHAEOLOGICAL AND ARCHAEOLOGICAL PERSPECTIVES ON CERAMIC ASSEMBLAGE FORMATION**

Ceramic ethnoarchaeology's impact on the analysis of prehistoric assemblages has been restrained. Ethnoarchaeologists think their work is ignored by prehistoric archaeologists who, in turn, complain that it is difficult to apply ethnoarchaeological "findings" because they focus, for example, on whole pots rather than sherds. Hence, both groups are frustrated by the Great Divide - a chasm of ignorance that thwarts a broad understanding of the origins and interpretive potential of ceramic assemblage variability. With scholars whose ceramic research embraces these topics, this symposium seeks to establish common analytical ground and identify opportunities to narrow the Great Divide between ethnoarchaeological observations and archaeological practices.

**[136] GENERAL SESSION • SOUTH AMERICAN ARCHAEOLOGY I****[137] SYMPOSIUM • ROCK ART AND CULTURAL PRACTICE: THE ARCHAEOLOGY OF HUNTER-FORAGER LIVED EXPERIENCE**

*(Sponsored by SAA Rock Art Interest Group)*

Rock art is recognized as an important and highly visible part of hunter-forager material culture.

Although it is a variable expression of hunter-forager theories of being, it played an important role in the daily lived experience of prehistoric peoples. This session explores the archaeological and landscape contexts in which rock art is situated, and the ways in which these provide an informing context for understanding the social and economic routines associated with it. The papers presented here illustrate the ways in which the archaeological study of rock art can address issues of cultural process, identity construction, and territoriality.

**[138A] Workshop ■ Excavating Powerpoint Workshop I**

**[138B] Workshop ■ Excavating Powerpoint Workshop I**

**[138] SYMPOSIUM • PRESENTING ARCHAEOLOGY IN COURT**

*(Sponsored by SAA Government Affairs Committee)*

When archaeological sites become victim to vandalism, protection becomes a matter of successful prosecution of perpetrators to deter future looting and seek punishment for crimes and restitution for damages. The session begins with the history of ARPA from one of its drafters, Don Fowler, and then presents case stories by the archaeologists and lawyers who have served as ARPA warriors. Part two offers papers on the forensic valuation of archaeological resources, and part three provides tools for prosecutors in the criminal, civil and international arenas.

**[139] SYMPOSIUM • THE FOUNDATIONS OF SOUTHWEST COMMUNITIES: VARIATION AND CHANGE IN PITHOUSE VILLAGES BETWEEN A.D. 200-900**

This symposium explores fundamental questions about variation and change in pithouse villages throughout the American Southwest. What is the significance of intra- and inter-site variability in architecture, site structure, and settlement distribution for understanding the organization of production, and socio-political structure between A.D. 200 and 900? What are the means of secular and ritual integration in the formation and development of these early communities? Are there continuities in the organization of Southwestern communities despite the shift in vernacular architecture that began at end of the first millennium A.D? These questions are addressed through regional summaries and thematic papers.

**[140] SYMPOSIUM • LINKING THE PRESENT TO THE PAST: RECENT STUDIES IN FORAGER AND FARMER ETHNOARCHAEOLOGY**

*(Sponsored by SAA Program Committee)*

For the last few decades, ethnoarchaeology has been and continues to be a useful and important tool for deciphering the archaeological record. While many early studies were largely descriptive and atheoretical, recent ethnoarchaeological research is attempting to move beyond particularistic characterizations to construct more useful models and theoretically driven questions. These studies allow researchers to address 'big picture' issues and to ask different types of questions about material remains. This session brings together recent research on forager and farmer ethnoarchaeology from around the world that address questions about settlement, technology, and subsistence.

**[141] GENERAL SESSION • SOUTHWESTERN ARCHAEOLOGY**

**[142] GENERAL SESSION • TOPICS IN HISTORY AND HISTORIC ARCHAEOLOGY**

**[143] GENERAL SESSION • SOUTHEASTERN ARCHAEOLOGY**

**[144] SYMPOSIUM • SPACE, TIME, METAL AND MUD: NEW DEVELOPMENTS IN THE RECONSTRUCTION OF CULTURAL LANDSCAPES IN SOUTHEAST ASIAN ARCHAEOLOGY**

Current pre- and early historic research in Southeast Asia is altering long-held perceptions of cultural development in the region. New advances in spatial analysis, paleoenvironmental reconstruction and archaeometallurgy will each be discussed in relation to specific problems of the Bronze Age to medieval Angkorian periods. Emphasis will be placed on the utility of combining these fields, specifically, the role of paleoenvironmental analysis in providing temporal anchors for deciphering the order of spatial patterning.

**[145] SYMPOSIUM • INTERPRETING SOCIAL POWER AND ECONOMY THROUGH PALEOETHNOBOTANICAL REMAINS**

Interpretation of social power and economy can be informed through the use of paleoethnobotanical data since plant resources often constitute a considerable portion of the economic base in both stratified and egalitarian societies. Negotiation for resources may

perpetuate divisions, or may necessitate solidarity and equality. Paleoethnobotanical data can be used to clarify the role of feasting and ceremonies or trade and tribute, and can inform us about gender relations and site hierarchy. This symposium will showcase current research of "third generation" paleoethnobotanists and archaeobotanists while exploring plant use as it relates to differential resource access.

**[146] GENERAL SESSION • PATRIMONY, DIVERSITY, ETHICS, AND EDUCATION**

**[147] SYMPOSIUM • STEALING THE PAST: PRESS COVERAGE OF ILLICIT ARCHAEOLOGY**

*(Sponsored by SAA Media Relations Committee)*

Every year unrecoverable archaeological information is lost to looters, pot hunters and scavengers. Legal or illegal, the loss of artifacts and their provenience continues. As archaeologists we know this, but how does the media - newspapers, magazines, TV and the Internet - treat these events. Is diving on the Titanic good science? Is scavenging Spanish Galleons an acceptable sport? Is the trade in art and artifacts good practice? Does media coverage glorify these activities or does it help to quash them? Papers will review the coverage of a variety of illicit activities and their impacts.

**[148] ELECTRONIC SYMPOSIUM • SQUARING THE SPHERES: INTERREGIONAL PERSPECTIVES ON POSTCLASSIC MAYA CERAMICS**

Type-variety classification encourages different type names for Postclassic Maya ceramics that are similar at various sites, making it difficult to compare assemblages. Chronological relationships between various Postclassic ceramic spheres are still unclear, and there are difficulties in comparing ceramics from different zones of the Maya world and its periphery. Participants will present well-known Postclassic ceramics from sites where they work, compare these to similar ceramics elsewhere, and assess the best methods for presenting these comparisons. We will critically evaluate type-variety classification in the assessment of interregional interaction and the chronological alignment of ceramics from around the Maya world and beyond.

**[149] SYMPOSIUM • FORMATIVE PERIOD SOCIAL TRANSFORMATIONS IN CENTRAL AND WESTERN MEXICO**

The Formative period in Mesoamerica (c.1600-100 BC) spans some of the most significant social transformations of prehistory, beginning with the establishment of the first sedentary villages and ending with the development of more complex regional polities on the cusp of state formation and urbanization in the Classic period. This symposium will examine recent research on regional trends and site-specific investigations in central and western Mexico, areas often overlooked for their apparent lack of contact with the Olmec sphere early in the Formative and overshadowed in the Late and Terminal Formative by later Classic developments.

**[150] SYMPOSIUM • LITHIC REDUCTION ANALYSIS AND PROBLEMS OF PREHISTORY**

The session being proposed is a venue for current research on lithic reduction strategies, and the larger cultural implications of choices made by early lithic artisans, as a means of furthering our understanding of the prehistoric past. It is an opportunity to explore the potential of reduction studies as a means to broader interpretive ends, rather than just an analytical end in and of itself. By expanding our concepts and methods we stand a much greater chance of refining our perceptions about past cultural dynamics and the people that drove them.

**[151] SYMPOSIUM • FROM PALEOINDIAN TO ARCHAIC-VIEWS ON A TRANSITION**

The contributions of this symposium review and synthesize the cultural transformations that mark the transition from Paleoindian to Archaic societies in North America. This event, often viewed from a continental perspective, represents the first major cultural shift that took place solely in the Americas and sets the stage for the unique developments of cultural complexity that distinguish later North American prehistoric societies. These papers, placed on local scales but with regional perspectives, review how societies adapted to the dramatically changing environmental and cultural landscapes that occurred at the end of the Pleistocene and the early portion of the Holocene.

**[152] GENERAL SESSION • TOPICS IN MESOAMERICAN ARCHAEOLOGY**

**[153] SYMPOSIUM • ARCHAEOLOGICAL THEORIES AS IDEOLOGIES**

Archaeology is based on theories and abstract concepts. This session critically evaluates the

wider ideological impact of such general research frameworks. Concepts like identity, agency, individuality etc. are often applied indiscriminately to many places and times. The result is a powerful de-historicizing process that suggests the universal relevance of contemporary theories. However, theories are always created in a wider socio-economic reality. More importantly, they are driven by and legitimize political interests located outside of academia. Papers in this session will investigate this relation between theories and the interests they serve, and how theories express and conceal such interests.

**[154] SYMPOSIUM • IN HONOR OF GWINN VIVIAN: PUBLIC ARCHAEOLOGIST, MENTOR, AND CHACO SCHOLAR**

Over the course of Gwinn Vivian's distinguished archaeological career, he has been a teacher, mentor, role model and friend to scores of Southwest archaeologists. Gwinn has been an instrumental figure in the development of cultural resource management, nonprofit archaeology, and public outreach in the Southwest. He is a preeminent Chaco scholar whose research has seminally enhanced our understanding of Chaco Canyon and its environment. In this session, we draw together colleagues from all venues of Gwinn's professional life to honor his contributions to the discipline in the classroom and the boardroom, in the field and in our intellectual lives.

**[155] FORUM • BRIDGING THE GAP: INTEGRATING ARCHAEOLOGICAL SCIENCES AND ARCHAEOLOGY**  
(Sponsored by Society for Archaeological Sciences)

The successful integration of archaeological sciences within broader archaeological investigations has been a recurring goal for both practitioners and consumers of archaeological science. Opening remarks by panelists representing diverse research backgrounds will address problems and progress in meeting this goal in light of panelists' personal research experiences. The ensuing audience discussions will focus on central issues such as how and when specialists should be integrated into archaeological research projects, what drives archaeometric research, and how to prepare students for careers in archaeological science or for effective communication with archaeological scientists. All interested individuals, and especially students, are encouraged to attend.

**[156] GENERAL SESSION • SOUTH AMERICAN ARCHAEOLOGY II**

**[157] GENERAL SESSION • THE ARCHAEOLOGY OF MEXICO**

**[158] SYMPOSIUM • ENGENDERING HOUSEHOLDS IN THE PREHISTORIC SOUTHWEST**

Households represent a fundamental aspect of research on prehistoric Southwestern societies. Approaches to prehistoric households vary, but often involve examining site lay-out, architectural features, and artifact assemblages to address a diverse array of topics, including social organization, mobility, and ethnicity. In this symposium, participants use these same kinds of data to discuss how women, men, and children within these households lived and interacted. Examples from across the Southwest are presented. By taking a gendered approach, we hope to gain new insights into these households and their role in these societies.

**[159] SYMPOSIUM • SPHERE OF INFLUENCE: FIFTY YEARS OF INTERPRETING LOWLAND MAYA CERAMICS IN THE SHADOW OF THE UAXACTUN REPORT**

In the 50 years since R.E. Smith's Ceramic Sequence at Uaxactun, Guatemala, his work has become synonymous with the lowland Maya ceramic sphere. "Chicanel" and "Tzakol" for example, provide definitions approaching dictionary-level accuracy for archaeologists. While Smith's insights have stood the test of time, the cultural landscape has increased in temporal and spatial complexity due to new research. This session puts our present knowledge of lowland Maya ceramics into historical context, framed against Smith's seminal work.

**[160] SYMPOSIUM • RESEARCH AT CHAVIN DE HUANTAR, PERU, 1994-2004**

Research at Chavin de Huantar between 1994 and 2004 has dramatically changed understanding of the growth and role of this important Andean formative monumental center. This symposium presents results of ongoing work at the site. High-precision mapping, excavations, materials analyses, architectural spatial analyses and dating, GIS survey, conservation, and other research efforts have provided significant new data on Chavin's construction, chronology, and function, as well as its relationships with surrounding settlements, its highland landscape, and other sites. These data in turn provide insight into the growth of authority at Chavin and processes of emerging social complexity during the Andean formative period.

**[161] SYMPOSIUM • ANIMAL USE IN THE EARLY COLONIAL SOUTHWEST: CHALLENGE AND OPPORTUNITY**

Until recently, early colonial (seventeenth-eighteenth century) Southwestern animal use was little investigated. Studies now coming to fruition shed light on the earliest phases of contact between the indigenous peoples of New Mexico and Arizona and Spanish colonial populations. Papers in this symposium focus on both indigenous and colonial faunal utilization. They document the ways in which local ecology, pre-colonial hunting practices, cultural and economic variability, and history of missionization interacted to produce continuity and change in indigenous faunal utilization among Pueblo and Piman populations, and the degree to which colonial people adhered to European foodways.

**[162] GENERAL SESSION • CALIFORNIA ARCHAEOLOGY**

**[163] SYMPOSIUM • CROSSING THE STRAITS: PREHISTORIC OBSIDIAN SOURCE EXPLOITATION IN THE PACIFIC RIM**

The aim of this symposium is to present state-of-the-art data on the prehistoric use of obsidian in the Pacific Rim regions, with a focus on long-distance exchange networks as direct evidences of contacts and migrations since the Upper Palaeolithic (ca. 30,000 years ago). Main topics are: a) geochemical characterization of major obsidian sources; b) patterns of obsidian use in the prehistoric cultural complexes; c) prehistoric contacts and migrations. Geographical coverage includes Oceania, Japan, Korea, Russia, Southwestern USA, and Mexico. Data from the Russian Far East (Primorye, Amur River basin, and Kamchatka) and Korea will be presented for the first time.

**[164] SYMPOSIUM • APPLICATION OF CAOS IN ARCHAEOLOGY**

Measurement of specimen and/or artifact morphology is a critical component of archaeological analysis. Historically this measurement has been done using hand-held instruments. Computerized smart-vision systems (Computer-Assisted Optical Stereology/CAOS) offer enhanced measurement capability. In addition to measuring standard dimensions such as length, width, and thickness, they can also measure shape parameters. Large numbers of specimens can be measured quickly and efficiently. The papers comprising this symposium demonstrate the utility and effectiveness computerized smart-vision systems in a variety of archaeological analyses.

**[165] SYMPOSIUM • FIFTEEN YEARS OF NAGPRA IN THE UNITED STATES AND BEYOND: ADDRESSING HUMAN REMAINS COLLECTIONS AND REPATRIATION**

2005 is the 15th anniversary of the passage of NAGPRA, perhaps the most important and controversial legislation for US archaeology. There is no British law comparable to NAGPRA. Britain recently produced the Palmer Report, which calls for the clarification of the standing of human remains in British museum collections, and recommends that the UK enact law setting appropriate policy and procedures. This session will examine continuing issues surrounding human remains, combining a 15-year review of aspects of NAGPRA with accounts from Britain on the Palmer Report and responses to the Report with speakers from the US, Britain, and Australia.

**[166] SYMPOSIUM • ADVANCES IN EASTERN MAYA ARCHAEOLOGY: RESEARCH IN THE ULUA VALLEY, HONDURAS**

Twenty-five years of research in Honduras' Ulua valley have produced new understandings of social dynamics of the eastern Maya Lowlands from before 1600 BC to the colonial period. This session explores how residents of multiple independent settlements used household-made objects to negotiate social relations within and extending outside the valley. Technical analyses are used to ground interpretations that link practices on the level of the individual, the house, and the town. The reproduction of practices over time and their transformations are viewed as products of local decision-making that consistently maintained regional heterarchy in response to changing conditions.



## ABSTRACTS OF INDIVIDUAL PRESENTATIONS

**Abbott, David (Arizona State University) [48] Discussant**

**Abbott, David R. (Arizona State University)**

[23] *Hohokam Buff Ware Provenance and Its Implications for Sedentary Period Pottery Economics*

Following a decade of geological sampling, petrographic analysis, and petrofacies modeling in the Phoenix Basin, Arizona, the provenance of Hohokam red-on-buff pottery is now being determined. For this paper, the temper constituents were analyzed in nearly 1,000 sherds from four widely separated sites in the lower Salt River valley. The results implied remarkably concentrated ceramic production in the Snaketown/Gila Butte/Maricopa Road portion of the middle Gila River valley. This finding is consistent with the sophisticated division of labor for pottery manufacture during the Sedentary period as previously inferred based on similar analyses of plain ware specimens.

**Abbott, Lawrence (New South Associates, Inc.)**

[109] *Quartz, What it Is, What it Isn't, What it Should Be: A View from the South Atlantic Slope*

The use of quartz by prehistoric people for the construction of stone tools is well documented in the literature. Yet for many archaeologists the nature of quartz, and a basic understanding of its use as a raw material for tool production, remains enigmatic. Quartz use has frequently been relegated to the realm of expedience without more detailed attention given to its place in the general lithic landscape. This paper will discuss quartz use on the South Atlantic Slope in light of recent research in the Southeast. This research suggests that quartz use is far more complex and structured than previously thought. Suggestions will be made regarding how to bring quartz into the main stream of lithic studies.

**Abbott, Monte (Washington University in St. Louis)**

[143] *A Dated Sequence of Flotation-Derived Subsistence Data from Lyon's Bluff (22OK520)*

This preliminary assessment of plant food production at the Lyon's Bluff mound and village site is based on flotation-derived subsistence data from radiocarbon-dated contexts (A.D. 1200 - A.D. 1650). An abundance of both domesticated and wild resources is documented. Given the site's location on east central Mississippi's Black Prairie, intensive cultivation of small-seeded native grains is not predicted. However, recently published field notes and maps from Moreau Chambers' 1935 excavations at Lyon's Bluff indicate the presence of "charred grain masses." I evaluate the presence and significance of native starchy seeds at Lyon's Bluff in light of the current paleoethnobotanical data.

**Abe, Yoshiko (SUNY Stony Brook)**

[140] *Ethnoarchaeology of the Evenki hunters of Northern Transbaikalia, Russia*

This ethnoarchaeological study of a small Evenki group in central Siberia addresses questions about subsistence. Zooarchaeologists, using modern, ethnoarchaeological studies as analogues to reconstruct past behavior assume two things: that a link between hunting and/or butchery behavior and archaeological material remains exist; and that environmental and anatomical constraints overwhelm cultural and behavioral variables, or specifically that anatomy dictates butchery pattern. The hunting and butchery practices of this group were studied with these questions in mind. The link between behavior and material remains is explored through the study of butchery behavior and surface modification, using a GIS image-analysis approach.

**Abraham, Arun [107] see Bauer, Alexander**

**Abraham, Sarah (University of California, Santa Barbara)**

[136] *The Collao Occupation of Pukara, Lake Titicaca Basin, Peru*

Most of what is known about the Late Intermediate Period (LIP) (A.D. 1100-1450) Collao culture is based on colonial Spanish chronicles. Over the years, this documentary record has been supplemented by limited archaeological investigations. The majority of these studies has focused on the hilltop fortresses that were prevalent during this period. Recently, excavations of the Pukara Domestic Archaeology Project have uncovered a substantial Collao occupation, including rare examples of LIP architecture outside these defensive structures. This research report will present the results of the artifact analysis, elaborating on earlier Collao ceramic and architectural studies.

**Abraham, Shinu (St. Lawrence University), Shajan K. Paul (Kottayam University) and V. Selvakumar (Centre for Heritage Studies)**

[14] *Pattanam: A Newly Discovered Early Historic Site in Kerala, South India*

Early texts have long asserted that India's southwestern Malabar Coast was a key participant in the maritime trade networks of the Indian Ocean during the Early Historic period (200 BC-AD 400), but until recently coastal surveys had not produced evidence of the trading sites that were supposed to have thrived along the coast. However, a newly discovered site in the coastal Kerala town of Pattanam has yielded material evidence suggesting the presence of a substantial Early Historic urban settlement which, if confirmed, will be a major contribution toward understanding early South Indian socio-economic development and Indian Ocean inter-regional interactions.

**Abraimiuk, Marc (University College London)**

[116] *Inferring the Significance of the Movement of Manos and Metates in the Maya Lowlands*

Manos and metates held great significance for the Classic Maya and were more than just utilitarian items. Archaeological evidence taken from a variety of contexts suggests that manos and metates were extensively utilized in rituals. Moreover, excavations and provenance studies conducted in the Maya Mountains not only support the important ritual role that manos and metates played but suggest that the movement of manos and metates among different communities was also important to the inhabitants of the communities. This paper will focus on how we might be able to infer what the movement of manos and metates meant for Classic Maya in different geographical contexts.

**Abrams, Elliot (Ohio University)**

[40] *The Formation of Tribal Societies in Southeastern Ohio*

Archaeologists have long considered an explanatory ecology for the emergence of tribal societies in the pre-industrial world. Drawing from over a century of archaeological research, the patterns of emergent tribal institutions are documented for southeastern Ohio, particularly focused on the Hocking Valley. The contexts for decision making leading to these tribal institutions are discussed.

**Acabado, Stephen (University of Hawaii)**

[64] *Village Boundaries and Communication Routes: A GIS-Based Analyses of Central Cordillera, Philippines*

The Ifugao of Northern Philippines occupies a section of the Central Cordillera Highlands. Based on ethnographic reconstruction, they have inhabited the area for over 2000 years. However, archaeological data only suggests at least 300 years of habitation. The ethnographic present of Ifugao, whose villages are separated by valleys and rivers, shows that there are several groups speaking different dialects. This paper will delve on the possible communication routes of the Ifugao villages and hypothesize village/ethnic boundaries using GIS analyses.

**Ackerman, Robert E. [28] see Endacott, Neal**

**Acosta, Rosario [149] see Liot, Catherine**

**Adams, E. Charles (University of Arizona) and Amy Jo Vonarx (University of Arizona)**

[69] *Burning Issues: Developing a Methodology for the Analysis of Ancient Structural Fire*

The ancient Hopi village of Chevelon was occupied for a century until the late 1300s and exhibits extensive burning among its 500 rooms. Traditionally, archaeologists have attributed burning to accident, violence, or ritual, unable to resolve the problem of equifinality. Arizona State Museum has spent three years mapping and excavating at Chevelon. Our research has revealed considerable variability in the presence of burning. By collaborating with a professional fire and arson investigator, this poster discusses the benefits of interdisciplinary research in developing consistent methodology in the analysis of burning that will allow archaeologists to better choose among causes.

**Adams, Jenny (Desert Archaeology, Inc.)**

[158] *Identity in Technological Traditions*

Practitioners of different technological traditions who come into contact have the option of adopting new technology, modifying their existing technology, or remaining constant with their existing technology. Who takes on new technology and who remains committed to existing technology? How are these choices manifested in the archaeological record? Variations in the technological traditions of food grinding, axe hafting, and pot forming provide the background for this discussion about gender and group identity. Identity differences are evaluated in three diverse areas in Arizona: Point of Pines, Tonto Basin, and northeast of Flagstaff.

**Adams, Karen [141]** *see Hard, Robert*

**Adkins, Cynthia (Paleo Research Institute)**

[53] *Paleoclimate and Latitudinal Variation Affecting Prehistoric Cultures in the Midwest*  
Archaeoclimatic modeling, with resolutions of 200 year averages, has made it possible to simulate past climates. This poster presents a model of estimates of water supply history, snow fall history, precipitation history, annual march of precipitation and temperature history for the region of Niles, Michigan and Ft. Campbell, Kentucky. Local pollen diagrams are used to ground-truth the archaeoclimatic model. Understanding movement of ecotones through the change in tree species in a longitude transect between southern Lake Michigan and the western mesophytic forest of Kentucky sheds light on latitudinal variation that affected prehistoric cultural choices.

**Adler, Daniel (Harvard University), C. Reid Ferring (University of North Texas) and David Lordkipanidze (Georgian State Museum)**

[62] *The Open-Air Component of Middle Palaeolithic Mobility and Land Use in the Dmanisi Region, Georgian Republic*

Researchers recognize that open-air sites play a significant role in larger systems of hunter-gatherer mobility and land use and that the failure to account for such sites can lead to acute misconceptions. Mashavera Gorge 4 was excavated during 2004 and found to contain a series of discrete, stratified Middle Palaeolithic occupations that provide the first regional data on the location and function of logistical loci. Based on biostratigraphy and technological data we situate MG4 within the late Middle Pleistocene. Data from this new excavation are presented and an attempt is made to calibrate our current understanding of regional Neanderthal behavior.

**Adler, Michael (SMU)**

[6] *Collaborative Research with Indigenous Communities: Richard Ford's Legacy of Integrative Research in the American Southwest*

Richard I. Ford's career in anthropological archaeology has consistently conjoined ethnographic and archaeological perspectives to deepen our appreciation of the links between past and present. Even during the New Archaeology's full-frontal scientism, Ford melded oral historical, archaeological and traditional knowledge in his work with indigenous groups in the American Southwest. Equally as important has been Ford's mentoring for those of us who sought to employ a similarly integrative approach in our research. This paper focuses on the means by which indigenous and scientific communities conceptualize the idea of "cultural affiliation," research derived in large part from discussions with Dick Ford over the past twenty years.

**Adler, Michael [165]** *see Bruning, Susan*

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

[111] *The Mexican Connection: Another Look at "Perishable" Relationships between Mexico and Points*

For more than three decades, it has been clear that it is possible to distinguish a series of prehistoric basket making "traditions" in Western North America, specifically including Mexico. While the exact nature of these traditions remains controversial, virtually no one would deny the existence of distinctive and long-lived regional perishable manufacturing trajectories with unique suites of signature artifacts and definite frontiers. Perhaps some of the most intriguing aspects of these entities are their interrelationships both in time and through time. This paper reexamines the relationships between basket making and basket making populations in Mexico, the American Southwest, and points further afield, and concludes that certain technologies of Mexican genesis are introduced into the Southwest and elsewhere precisely at the time that a package of domesticates of Mesoamerican origin are also spreading northward. The nature of both dispersals is defined and examined in several scenarios are offered to "explain" these interrelated processes.

**Adovasio, James M. [146]** *see Dirkmaat, Dennis*; [151] *see Carr, Kurt*

**Advincula, Mario (Proyecto Arqueologico Norte Chico (PANC))**

[128] *Analysis of Early Monumental Architecture in the Norte Chico: The Late Preceramic in the Pativilca and Fortaleza Valleys*

As part of an effort to better understand the archaeological landscape of the Norte Chico region during the Late Preceramic (3000 to 1800 Cal. B.C.) 13 sites with monumental architecture were tested in 2002 and 2003. The analysis of mound construction in context with their respective dates permits an assessment of the sequence of occupation of the sites, the construction patterns and a relative chronology of mounds. The data demonstrate that an unusual system of relatively independent ceremonial centers developed in this region during the 3rd millennium B.C.

**Agbe-Davies, Anna (DePaul University) [90] *Discussant***

**Aguero, Adriana (UNAM) and Annick Daneels (UNAM)**

[54] *Competition as a Political Tool*

Competition in the form of a regulated physical confrontation of two teams enhances cultural and factional cohesion not only of the players but of their supporters. We will discuss the case of the ballgame in Classic period Central Veracruz, where we consider the game was used primarily as a means to secure a following, embedded in a particular beheading ritual meant to legitimate and consolidate the elite's position in society. In centralized entities, the ballgame seems to have functioned to resolve conflicts between neighboring entities. In segmentary entities, on the other hand, it was used to integrate the allied lineages that always were potentially centrifugal components. An iconographic classification of male figures places the ball players in the highest ranks of sociopolitical tiers, including the depiction of reigning lords attired as such, a fact which reinforces the ties of ballgame to power.

**Aguilar Diaz, Miguel A.**

[114] *Social Reorganization and the Cultural Impact of the Inca on the Middle Chillon Valley*

This paper shows social and political changes in the central portion of the Chillon Valley at the end of the Late Intermediate Period (ca. 1350-1450) as a result of the arrival of the Inca. This cultural contact resulted in a reorganization of social space, sacred space and in systems of economic production among the ethnic groups of the Quivi, Sapan, Macas, Guarabi and Colli who occupied the lower and middle valley, as well affecting groups of the upper valley, the Canta and Chacalla. The strategies of "vertical control" described by Murra (1975) and Dillehay (1987) are examined in light of these data as cases of ecological complementarity in economic production.

**Ahler, Stanley (PaleoCultural Research Group), Kenneth L. Kvamme (University of Arkansas), Phil R. Geib (Navajo Nation Archaeology Department) and W. Raymond Wood (University of Missouri-Columbia)**

[27] *Double Ditch Village: Three Centuries of Community Change, AD 1450-1785*

Tests at 40 locations integrated with geophysical data have yielded a remarkable record of settlement change at Double Ditch Village, ND. The founding community - an 8-ha, TMM-style village of 100+ houses - evolved over 300 years to ~32 earthlodges on 1.7 ha. Four (+?) sequential fortification systems were used; temporally intermediate ones incorporated constructed perimeter mounds. Occupants during the final 150 years stripped earth, houses, and trash from the village interior in advance of lodge replacement cycles, perhaps in the aftermath of major epidemics. Planar borrowing and environmental degradation along the shrinking village margin obliterated all shallower traces of the founding settlement.

**Ahlman, Todd (The University of Montana) and Nicholas Herrmann (The University of Tennessee, Archaeological Research Laboratory)**

[60] *Development of an Archaeological Predictive Model for the Cumberland Gap National Historical Park, Kentucky, Tennessee, and Virginia*

The Cumberland Gap National Historical Park is located at the juncture of Kentucky, Tennessee, and Virginia and is well known for its historic occupations, but little is known about the park's prehistoric occupations. As part of an Archaeological Overview and Assessment, a predictive model was prepared using the ArcView GIS 3.x extension Weights of Evidence. This model used slope, aspect, and distance to water as evidential themes and was tested by seven random and three non-random 20-acre blocks. This testing found that geology played a major role in the location of archaeological sites; therefore, the model was refined to include geology.

**Ahlstrom, Richard (HRA, Inc.) and Jerry Lyon (HRA, Inc.)**

[35] *Circular Surface Features of the Las Vegas Valley, Nevada*

Rock rings and cleared circles are common surface features on fragile-pattern sites in the Mojave and northwestern Sonoran deserts. These features are difficult to interpret in functional terms: Their circular form represents the simplest choice for any discrete, non-linear facility; their construction is simple; and most lack depth and associated, functionally specific surface artifacts. Some features do, however, yield significant excavation and pollen evidence. Furthermore, patterning in the distribution of features, recognized at different spatial scales, can contribute to the interpretation of archaeological landscapes. These perspectives are applied to the population of recorded features in southern Nevada's Las Vegas Valley.

**Ahlstrom, Richard [94] *see Lyon, Jerry***

**Aimers, Jim (Miami University, Ohio) and Elizabeth Graham (University College London)**

[148] *Type-Variety on Trial: Experiments in Classification and Meaning Using Ceramic Assemblages from Lamanai, Belize*

Ceramic typological classification has been delayed at Lamanai owing to concerns about the limitations of using a single system, such as type-variety. Nonetheless, type-variety provides a standard language for site-to-site ceramic comparison. To complement earlier contextual studies of the ceramics, we decided to experiment with the independent implementation of at least three separate kinds of classification based on type-variety, petrographic, and iconographic analyses. In this way we hope to reveal the strengths and weaknesses of each method and suggest ways in which each contributes to our knowledge of the social, cultural, and economic context of ceramic consumption and production at Lamanai.

**Akridge, Glen (Arkansas Archeological Society)**

[127] *Contributions by Amateurs in the Arkansas Training Program and Beyond*

Arkansas established an annual field excavation beginning in 1964 as a means for training amateurs in the proper methods of archeology. The two-week program sponsored jointly by the Arkansas Archeological Society and the Arkansas Archeological Survey grew to include week-long seminars on various archeological topics and a certification program to recognize an individual's archeological accomplishments. The success of the program attracts volunteers from all over the country. The experience gained by amateurs at the Training Program is frequently utilized during other fieldwork projects, such as site surveying and emergency salvage digs.

**Alarcon, Carmela (Proyecto Arqueologico Norte Chico (PANC)) and Winifred Creamer (Northern Illinois)**

[128] *Preceramic Diet During the Late Archaic Period in the Norte Chico Region of Peru*

A wide variety of edible plant remains have been recovered from stratigraphic samples excavated at Late Archaic (3000-1800 BC) sites in the lower valleys of the Pativilca and Fortaleza Rivers. The importance of plant foods as a fundamental part of the diet during the developments of the Late Archaic Period has been questioned by archaeologists who have focused on the importance of marine resources. The present analysis indicates a wide variety of plant species were consumed, including those with relatively high protein content, such as sweet potato, beans, achira, and possibly maize. These data suggest that plant foods are likely to have been a substantial component of the preceramic diet.

**Alconini, Sonia (University of Texas at San Antonio)**

[68] *Testing Ethnicity and Identity among the Yampara: Style, Kinship and Feasting Patterns in the Southeastern Inka Empire*

The Yampara comprised a polity on the southeastern margins of the Inka empire in the intermediate valleys dividing the Andes and Amazonia. The Yampara are often described in ethnohistorical and archaeological research as being multiethnic, forming ethnic archipelagos, as long-distance trading groups, and as ambivalent ethnics that combined both Andean and Amazonian traits. To test such ideas, this paper will explore the ways in which ethnicity and social identity were expressed at regional and communal levels in Oroncota. Analysis will focus on the contextual distribution of ceramic styles and prestige materials to illuminate the interplay of ethnicity with kinship, production and feasting patterns.

**Aldenderfer, Mark S. (University of California, Santa Barbara)**

[55] *The Neolithic Period on the Tibetan Plateau*

The Neolithic of the Tibetan Plateau is very poorly understood. After a brief review of what is known of the Neolithic, the paper explores the following questions: 1) discrepancies between the archaeological, linguistic, and biological data that are said to characterize the Tibetan Neolithic, 2) the debates between proponents of an indigenous vs. a migratory origin of Tibetan Neolithic cultures, and 3) insights into the development of social complexity.

**Aldenderfer, Mark S. (University of California, Santa Barbara)**

[89] *Seeing and Knowing: On the Convergence of Archaeological Simulation and Visualization*

Research which explores a dynamic process often uses simulation as a modeling tool, and generally creates a set of numbers to summarize an experimental outcome. Many, if not most, archaeological questions are inherently spatial and are amenable to some form of visual representation. One direction archaeological simulation must begin to take is the integration of "knowing" via simulation and "seeing," which is the rendering of numbers in a visual format. In

this paper, I will explore the necessary conjunction of simulation and scientific visualization in service of archaeological inference and explanation.

**Aldenderfer, Mark S. (University of California, Santa Barbara)** [118] *Discussant*

**Alex, Lynn (University of Iowa)**

[96] *Time Capsules from the Past: Meskwaki History and Culture*

The Office of the State Archaeologist-University of Iowa has created an educational series entitled "Time Capsules from the Past" consisting of five different traveling resource boxes. Each "capsule" tells the Native American story in Iowa from ancient times to the present. Contents include artifacts, replicas, videos, DVDs, CDRoms, and other resources that focus on the culture and history of native peoples. "Meskwaki History and Culture," the most recent, highlights the Meskwaki from the Contact Period to the present. Collaboration with the Sac and Fox Tribe of the Mississippi in Iowa presented particularly interesting challenges in the development of this resource.

**Allen, Catherine (George Washington University)**

[99] *Renewal and Rectification in Andean Understandings of Death*

Contemporary Andean understandings of death may illuminate aspects of the precolumbian record. The self is not unitary but exists as an interactive complex of relationships of domination, subservience and interdependence, an equilibrium lost during the gradual transition from life to death. In the soul's liminal journey relationships of dominance and dependency are reversed, a moral state of "equal and opposite reaction," necessary before the soul can attain a 'dry' state of seminal neutrality. I relate this to Urton's discussion of Quechua mathematics as an 'art of rectification,' and to Inka abstraction as a kind of 'moral geometry.'

**Allen, Kathleen M. Sydoriak (University of Pittsburgh)**

[135] *Ceramic Variability and Social Identity: Applying Insights from Ethnoarchaeology to Iroquoian Pottery*

Ethnoarchaeological research has provided many insights into understanding the causes of ceramic variability in the archaeological record. Among these are those that focus on technical choices and manufacturing processes in relation to social boundaries. The ability to examine what was formerly termed function and style in a more unified way through a consideration of technological style provides new insight into the ways variability in ceramics relate to social and group identities and the process of marking social boundaries (whether intentional or not). Analysis of ceramics from two contemporary Seneca village sites provides a database within which to apply results from these ethnoarchaeological studies. Patterns of technological variability as evidenced in vessel morphology, construction, and decorative techniques are analyzed for evidence of the use of material culture as an expression of social boundaries. While insights into Iroquoian ceramic variability and its causes are gained, problems in identifying appropriate interpretations remain and are discussed.

**Allen, Mitch (AltaMira Press)**

[59] *Charlie Brown in the Classroom: Publishing Comics and Other Incendiary Devices for Teaching Archaeology*

In an age of expensive, overweight, and indistinguishable textbooks and students less equipped or willing to read them, instructors are continually searching for something to convey the excitement of archaeology in the classroom. Publishers occasionally help by providing non-traditional educational materials that mimic the entertainment media- simulations, virtual tours, pedagogical fiction, and comic books. Having developed a variety of these products, I can report successes and failures in this area. This presentation addresses challenges to the development, publication, and marketing of archaeology comics and similar media. It offers a set of principles on how they can be made more effective.

**Allgood, Jessica L. [2] see Martin, Andrew V.**

**Allison, James (Brigham Young University)**

[97] *Exchanging Identities*

In many societies, economic activities are an important means through which individuals create their social identity. This is particularly evident in, for example, some Melanesian societies where successful participation in exchange systems is an important determinant of an individual's social status. These processes are difficult to see in the ethnographic or prehistoric Southwest, where status differences are understated, but some principles apply cross-culturally. This paper focuses

on ethnographic examples showing how differential participation in institutionalized, inter-community exchange systems affects the negotiation of identity within communities. Examples from the prehistoric Puebloan Southwest are then examined in light of the ethnographic insights.  
**Allison, James R. [23]** *see* *Castro-Reino, Sergio F.*

**Alt, Susan (University of Illinois Urbana Champaign)**

[153] *Explanation and Archaeology: The Hidden Costs of Science*

The study of complex societies differs between and within the North American Southeast and Southwest. Researchers in both regions fiercely disagree over how to identify and define complexity. At the heart of these disagreements lay conceptual schisms founded in an uncritical application of supposed scientific tenets, such as Occam's Razor. I reexamine the appropriateness of such tests for interpreting past human actions, motivations, and historical events, and reconsider their implications for archaeological thought.

**Altaha, Mark (WMAT - Historical Preservation Office), Chip Colwell-Chanthaphonh (Center for Desert Archaeology) and John R. Welch (WMAT - Historical Preservation Office)**

[94] *Retracing the Battle of Cibecue: Western Apache and Archaeological Interpretations*

On August 30, 1881, United States military commanders ordered the arrest of noch ay del klinne, a medicine man fallaciously accused of exciting unrest among Apaches residing around Cibecue. A violent battle ensued, resulting in the death of Apaches and Calvary soldiers, and the only recorded attack on Fort Apache itself. This poster will report on a recent ethnohistoric project conducted in collaboration with Western Apache communities to re-examine the events with new archaeological, documentary and ethnographic research.

**Altaha, Mark [98]** *see* *Welch, John*

**Altschul, Jeffrey (Statistical Research, Inc.) [115]** *Discussant*; [37] *Discussant*

**Alvarez, Marco [50]** *see* *Bair, Danie*; [50] *see* *Wright, David*

**Alvitre, Cindi [33]** *see* *Teeter, Wendy Giddens*

**Alzola Romero, Aarón (University of Oxford)**

[64] *Inter-contextuality and Ethnic Identity in the Ebro Valley, Spain*

This paper considers ethnic groups in the Ebro Valley, Spain, during the Iron Age using Inter-contextuality, an approach to Identity based on the nation of material culture as a carrier of agency on one hand and the eminently discursive and contextual nature of identity on the other hand. The results of this study are than compared to those obtained by more traditional approaches. Inter-contextuality may lead to a reassessment of which ethnic groups were 'predominant' and 'minority' in the Ebro Valley, since present knowledge of ethnic groups is heavily influenced by Roman accounts, which stress Roman administrative and military interests.

**Amartuvshin, Chunag [125]** *see* *Honeychurch, William*

**Ambrose, Stanley (University of Illinois) and Rui Wang (University of Illinois)**

[14] *Chinese Neolithic Human and Animal Diet Reconstruction with Stable Carbon and Nitrogen Isotope Ratios of Bone Collagen and Apatite*

Neolithic human subsistence in the Middle Yellow River Valley (Xian, China) was based, in part, on Foxtail (*Setaria italica*) and Broomcorn millet (*Panicum miliaceum*) agriculture. High carbon and low nitrogen isotope ratios of these C4 crops permit reconstruction of their proportions in human and animal diets. Pigs and humans had similar carbon isotope ratios but different nitrogen isotope ratios. Pigs were thus probably provisioned with millet fodder. Baijia humans had higher collagen nitrogen and lower carbon isotope ratios, and higher apatite-collagen  $^{13}\text{C}$  spacings, than those of Jiang Zhai people, indicating diets with more fish and C4 grains, and less pork.

**Ambrose, Stanley [130]** *see* *Balasse, Marie*; [46] *see* *Beehr, Dana*

**Ames, Shelley [71]** *see* *Tews, Amber*

**Anders, Selena [24]** *see* *Lurie, Abbie*

**Andersen, Soren [46]** *see* *Forster, Marcus*

**Anderson, Atholl (Australian National University) [120]** *Discussant*

**Anderson, David (University of Tennessee)** [155] *Discussant*

**Anderson, David G. (University of Tennessee)**

[29] *Why California? The Relevance of California Archaeology and Ethnography to Eastern Woodlands Prehistory*

Temperate latitude hunter-gathering populations became extinct or were replaced by agriculturalists throughout much of the world prior to the development of anthropology. In California populations survived into the nineteenth century, where they were studied by early American anthropologists. The resulting ethnographic literature contains many sources of insight and analogy. The adaptations, lifeways, and material culture of Archaic period hunter-gatherers in Eastern North America exhibit many similarities with these late prehistoric and early historic California groups. Archaeologists working in the East will find much of value in the California ethnographic and archaeological literature.

**Anderson, Greg** [11] *see White, III, William*

**Anderson, Kenny (Las Vegas Paiute Tribe)**

[35] *Circles and Their Meaning to the Southern Paiute People*

The circle as a symbol is reviewed by the Elders of the Southern Paiute Language Study group. The Elders also will share their knowledge of rock ring features and other circular forms such as rock art symbols.

**Anderson, Kirk** [82] *see Spurr, Kimberly*

**Anderson, Phoebe S.** [130] *see Jones, Emily Lena*

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

[76] *Assessing Retouch Amount on Bifacial Technology*

Recently stone tool retouch has emerged as an important characteristic for determining the extent of tool curation as it relates to issues of human technological organization, settlement mobility, and land-use strategies. This paper reviews empirical evidence from experiments and excavated assemblages in developing and explaining techniques to measure bifacial retouch. The results show that different kinds of bifaces (based upon technological production processes) have different requirements for assessing amount of retouch. For instance, retouch indices effective for measuring bifacial hand-axes or knives produce spurious results when used to measure retouch amount on hafted bifaces used as cutting tools.

**Andreou, Stelios** [100] *see Margomenou, Despina*

**Andrews, Bradford (Alpine Archaeological Consultants, Inc.)**

[105] *The Behavioral Implications of Hunchback Shelter Flakes: Modeling Fremont Stone Tool Procurement and Consumption*

During the Kern River 2003 Expansion Project, the Hunchback Shelter yielded a considerable amount of data on its Fremont period occupations. These data included flaked stone debitage reflecting stone tool reduction activities. Evidence suggests that Hunchback, located adjacent to the Wild Horse Canyon obsidian source, functioned as a logistical camp where Fremont knappers initially processed implements destined for use elsewhere. Comparative analysis of the Hunchback debitage with Fremont village sites provides a basis for modeling settled Fremont stone tool economies. This model has implications for understanding the relative importance of different technologies and the archaeological signatures they have left behind.

**Andrus, C. Fred T.** [119] *see Reitz, Elizabeth J.*

**Anikovitch, M. V.** [62] *see Hoffecker, John*

**Anschuetz, Kurt F.**

[6] *Landscapes as Memory: Archaeological History to Learn From and to Live By*

The Tewa Pueblo Indians of northern New Mexico live in an environment rich with cultural-historical traces and contemporary meaning. Archaeological features, including old villages, agricultural fields, petroglyphs and shrines, are important elements of the Tewa landscape, even if few community members have observed these remains first hand. On-going archaeological studies, often conducted in collaboration with Tewa people, are compiling information that is



driving the development of new interpretive constructions of late pre-Columbian and early Historic period Tewa culture, history, and cultural process. Not only is science advanced, the Tewa use these archaeological observations to sustain their community traditions and cultural identities.

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

[124] *Comparing Northern Iroquoian Use of European-Introduced Copper-Based Metals in the Early and Middle Contact Periods*

During the Early and Middle Contact Periods, Native peoples throughout Northeastern North America used European-introduced metal trade goods as sources of raw material for the production of forms such as projectile points and beads. This presentation compares and contrasts the manufacturing techniques used and the forms created by three groups of Northern Iroquoian peoples: the Wendat, Seneca, and Susquehannock. Illustrative examples are drawn from the approximately contemporaneous Wendat Ball site, the Seneca Cameron and Factory Hollow sites, and the Susquehannock Schultz and Washington Boro sites. Interaction and possible exchange of technical knowledge between individuals in these groups is emphasized.

**Anthony, Jocelyn [129]** see Pino, Michelle; see Hostenske, Mary

**Antonieta Moguel, Maria [132]** see Carballal, Margarita

**Anyon, Roger (Pima County, Arizona), Steve Swanson (Arizona State University) and Margaret Nelson (Arizona State University)**

[139] *Pithouse Villages, Population Dynamics, and Landscape Use in the Southern Mogollon Region, AD 200-1000*

Mogollon region basin and range topography is more diverse than in most other regions of the North American Southwest. During incipient agricultural dependence, the region offered an array of settings in which agriculture could be productively pursued. We explore the relationship between environmental variables and occupation patterns of pithouse settlements dating to the period AD 200-900. We consider the relationship between size, timing, continuity, and resettlement and aspects of the environmental settings of settlements. Issues regarding when villages formed and in which settings (natural and social) they formed are addressed through analysis of the sizeable database on Mogollon pithouse settlements.

**Arakawa, Fumi [94]** see Gerhardt, Kimberlee

**Arakawa, Fumiyasu (Washington State University) and Kim Gerhardt (Consulting Geologist)**

[141] *Toolstone Procurement Patterns of Wetherill Mesa Assemblages from A.D. 750 to 1280*

Analysis of debitage from Wetherill Mesa in Mesa Verde National Park indicates dramatic changes in toolstone procurement patterns through time. Locally available igneous rock sources were the primary resource utilized for much of the early occupation of Wetherill Mesa. However, turning the Pueblo II period, there is a shift to using Brushy Basin chert, which is approximately 30 miles away. By the end of the occupation, there is another change in procurement and Morrison rocks were used. These changes in toolstone procurement patterns suggest significant information about social and/or technological transformation in the Mesa Verde region over time.

**Arakawa, Fumiyasu [69]** see Landt, Matthew

**Aranyosi, E. Floyd (University of Washington)**

[80] *Typology of the Irish Chambered Graves, and its Influence on Evolutionary Explanations*

One of the most significant predictions of the bet hedging model is the implication that populations that engage in bet hedging behaviors, such as monument building, will experience a relatively low variance of fitness, and will thus tend to persist in marginal environments. Testing this prediction against archaeological data has been difficult. A substantial part of the difficulty arises from the typological manner in which monumental architecture has been classified. Developing a multivariate numerical classification system that is designed to investigate evolutionary issues is a necessary prerequisite for expanding the application of evolutionary models in archaeology.

**Araujo, Astolfo G.M.**

[30] *Paleoindian Lithic Variability in Brazil (11,000 - 8,000 BP): Some Hypothesis on Whys and Whens*

It is striking the great variability showed in lithic industries all over South America by 11,000 years

BP. In this presentation we will focus on the industries present in the Brazilian territory, with a background of paleoenvironmental changes. Some considerations on the timing and expansion routes of the First Americans will be also made.

**Arbolino, Risa Diamond (Smithsonian)**

[102] *Comparing the Pace of the Repatriation Process: The Smithsonian vs. NAGPRA Institutions*

There are many ways in which repatriation at the Smithsonian is similar to institutions covered under NAGPRA, but one difference has some important ramifications. Over the past 15 years, our repatriation process has been claim-driven, so cultural affiliation studies are initiated at the request of tribes. Unlike most NAGPRA institutions, therefore, portions of our collections have not yet been fully evaluated for cultural affiliation. However, this does not mean that the pace of repatriation at the Smithsonian has been any slower. Illustrated by case studies, this paper will explore the pros and cons of a claim-driven consultation and repatriation process.

**Arden, Traci (University of Miami), T. Kam Manahan (Vanderbilt University), Justin Lowry (University of Miami) and Alana Deloge (University of Pittsburgh)**

[50] *Xuenkal: Mapping the Regional Polity of Chichen Itza*

Research in the Northern Maya lowlands inevitably references the urban center of Chichen Itza. However, very little is known about the economic, social or political relationship between Chichen and surrounding sites. In an attempt to learn more about this major center, we examine results of a new project centered at Xuenkal, Chichen's largest neighbor to the north. This poster will present mapping and artifactual data from the site center and preliminary interpretations of a regional survey focused on trading resources. Evidence suggests Xuenkal and its environs were influential in the economic arena dominated by Chichen Itza during the Late-Terminal Classic period.

**Arias, Veronica [60]** *see Richards, Heather*

**Arkush, Brooke (Weber State University)**

[36] *Prehistoric Settlement Systems in Southeastern Idaho: A View from the Curlew Valley*

This paper presents an initial late Holocene (ca. 2500 B.C. - A.D. 1800) settlement model for the northern Curlew Valley of southeastern Idaho, an area that forms part of the northernmost Bonneville Basin. It focuses on differential human utilization of three distinct ecozones (lowlands, foothills, and uplands) and the logical expectations for site locations and functions within this region. This preliminary, untested model is based on a sample of some 100 known archaeological sites and a decade of fieldwork in the study area by the Weber State University Archaeology Program.

**Armentano, Gabriela [30]** *see Martinez, Gustavo*

**Arnold, Philip (Loyola University Chicago)**

[13] *Early Postclassic Boundary Dynamics in the Tuxtla Mountains, Southern Veracruz, Mexico*

The Postclassic stands as the most poorly documented pre-Columbian period along the southern Gulf Lowlands. Nonetheless, this region was an important component of the Veracruz 'Affluent Production Zone' recently identified by Smith and Berdan (2003). This paper charts the 'Classic-to-Postclassic' transition in the Tuxtla Mountains, with particular attention to intra-regional boundary dynamics. Using excavation and survey data, the discussion identifies a process of increasing political balkanization coupled with economic diversification. These changes are used to frame the larger-scale forces that may have affected the boundaries of the southern Gulf Lowlands at the onset of the Postclassic Period.

**Arnold, Philip (Loyola University) [135]** *Discussant*

**Arnold, Richard (Pahrump Paiute Tribe) [35]** *Discussant*

**Arnold Scham, Sandra (American Schools of Oriental Research)**

[20] *Toward a Postnational Public Archaeology of the Ancient Near East*

Public archaeology, necessarily, has presented a daunting challenge to archaeologists from western countries working in the Middle East. In seeking to re-establish connections between the modern peoples and their colonized past, however, the work of many scholars, who once denigrated the influence of nationalism on archaeology in Europe and the United States, seems to exhibit an acknowledgement of the necessity for a "nationalist phase" as a logical antecedent for a colonialist one. This non-critical belief that the past should be a major constituent in the

construction of new national identities is emerging as a new western interpretive paradigm in the Middle East.

**Arthur, John (University of South Florida)**

[135] *Understanding Household Population through Ceramic Assemblage Formation: Ceramic Ethnoarchaeology among the Gamo of Southwestern Ethiopia*

There has been little ethnoarchaeological research on the relationship between ceramic assemblages and determining population estimates. This ethnoarchaeological analysis of the Gamo people of southwestern Ethiopia explores the ceramic life-cycle, inter-village variation, household socio-economic status, and vessel use-life to determine ceramic assemblage formation processes. The goal of this paper is to use the Gamo case study to indicate to archaeologists the types of variation that may affect formation processes and population estimates based on their ceramic assemblages.

**Arthur, John [85]** see *Weedman, Kathryn*

**Arzt, Jennifer (University of Wisconsin - Madison)**

[92] *The Ubaid Expansion - Internal Development and Changing Identity*

The Ubaid expansion represents the northern part of a pan-Mesopotamian process, in which Halaf and Ubaid 0-2 societies transformed themselves into the more complex southern and northern Ubaid 3-4 societies. These transformations involved changes in architecture, ceramics, burial practices and settlement patterns. In the north, they occurred gradually and in some regions incompletely, from middle and late Halaf into the northern Ubaid, in a way that strongly implies that the transition resulted from the adoption of Ubaid cultural traits by northern populations. This paper surveys the evidence for a gradual transition and considers some explanatory models.

**Ashmore, Wendy (University of California, Riverside) [12] Discussant; [31] Discussant**

**Aspillaga, Eugenio [49]** see *Tykot, Robert*

**Asselin, Hugo (Université du Québec)**

[164] *Present Use and Unexploited Potential of Image Analysis in Anthracology*

Anthracology has been used for some time in archaeology and paleoecology. Present use and unexploited potential of image analysis in anthracology will be discussed, using examples from North America, Europe and Africa and including: (1) Reconstructions of regional or local scale fire history using microcharcoal (m) from lake or peat sediments; (2) Determination of past vegetation composition and density or human fuel choice by anatomical identification of macrocharcoal (mm-cm); and (3) Reconstruction of past climates by measuring width (or density) of growth rings or other wood anatomy characters.

**Atalay, Sonya L.**

[47] *From Balls in Baskets to Pots on the Fire*

Cooking methods at the Neolithic site of Çatalhöyük, Turkey are presented, with a primary focus on the apparent shift from indirect boiling using clay balls in earlier levels, to direct boiling using pottery in later levels. Particular attention is placed on the transition from balls to pots, a time when both would have been used for cooking in very visible rooftop settings. This paper explores the ways that cooking practices during this transition were charged with strong symbolic meaning, while also offering a means of signaling one's group or individual identity in a time of widespread social and economic change.

**Athanassopoulos, Effie (University of Nebraska-Lincoln)**

[100] *Archaeological Landscapes, Mentalités and National Ideals in 19th Century Greece*

The role of archaeology in the process of nation building and the construction of national identities are issues that have attracted significant attention in recent years. This paper reflects on the changing research agenda of archaeology in 19th century Greece and the relation of the discipline to evolving national ideals. These choices were clearly reflected in the physical reorganization of the archaeological landscape from the 1830s on. The initial destruction of "post-classical" remains, an attempt to eradicate the physical evidence of an "inferior" past, was followed by their belated rediscovery, rehabilitation and incorporation into the national narrative.

**Ausec, Marne (Kenyon College), Patricia Urban (Kenyon College), Edward Schortman (Kenyon College) and Miranda Storkett (University of Pennsylvania)**

[38] *Servants of Two Masters: Ceramic Production at Las Canoas, NW Honduras, and Questions of Regional Identity*

Las Canoas, a 120-structure site on the Chamelecon between the Naco and Cacaupala valleys, was a center for red on naturally orange-brown pottery, with designs identical to red-on-tan ceramics made in Naco. The distribution of red-on-brown includes both valleys, both receiving identical products in the Classic. By the Terminal Classic, the valleys were receiving products differing in paste composition and designs: Naco vessels remained the same; Cacaupala ones had less-well-prepared pastes, and did not carry the distinctive Naco bird. Thus one group of producers met the needs of two polities, maintaining dual allegiances, from the Classic through Early Postclassic.

**Ausec, Marne [148]** *see Urban, Patricia*

**Authier, Martin (Tulane University)**

[70] *Where do Huancas Come from? Pre-ceramic Megaliths of the Norte Chico*

More than thirty huancas are present at the Pre-ceramic site of Caballote, located in the Fortaleza Valley of Peru. Caballote is a large Pre-ceramic site with monumental architecture and the largest concentration of huancas in the Norte Chico Region. As part of a larger Huanca study collecting metric and non-metric data, additional research was conducted at Caballote, including geological sampling from huancas and possible raw material locations to conduct petrographic sourcing and gathering spatial information using a Trimble backpack unit and an integrated GIS database. Results point to several raw material sources and a sizable labor investment.

**Autrey, Johanna [50]** *see Bikowski, Emily*

**Avery, Graham (Iziko - South African Museum), Teresa Steele (Max Planck Institute for Evolutionary Anthropology), Thomas Volman (Cornell University) and Richard Klein (Stanford University)**

[77] *EFTN HD2: A Mid-Pleistocene Artifact-and-Mammal-Bone Occurrence at Elandsfontein, Western Cape Province, South Africa*

In the early 1980s, Graham Avery excavated bones and artifacts on a paleosurface at EFTN HD2, at the northern end of the famous Elandsfontein (Hopefield) Acheulean site, 90 km north of Cape Town, South Africa. The mammal species and Acheulean artifacts imply a mid-Pleistocene age. None of the bones is conspicuously cut-marked. Carnivore chew marks are more obvious, and hyena coprolites are abundant suggesting a complex, multi-component occurrence. HD2 recalls other bone-artifact occurrences at Elandsfontein and at the nearby Acheulean site of Duinefontein 2. The sum supports the suggestion that Acheulean people had limited impact on the large mammals with which their artifacts are often associated.

**Awe, Jaime [112]** *see Griffith, Cameron*

**Baadsgaard, Aubrey**

[86] *The Ties That Bind: Connecting Women through the Ages*

In bridging the gap between feminist social theory and static archaeological remains, one line of insight has yet to be fully utilized, that of the interpretative voice of women, outside the academy, who live and labor in areas of archaeological interest. These voiceless women have ties and connections to the women of the past, through their oral traditions, their daily routines and activities, and the landscape they share with their predecessors. One small effort to listen to the women of a small Jordanian community illustrates how these connections can enliven the archaeological facts with gendered meanings that span millennia.

**Bachand, Bruce R. (University of Arizona)**

[91] *Recent Excavations at Punta de Chimino, Peten, Guatemala*

Recent investigations at Punta de Chimino, a fortified Maya site located on a peninsula in Lake Petexbatun, document a long sequence of ceremonial construction beginning in the Middle Preclassic period. Excavation of E Group buildings in the Acropolis resulted in the discovery of a large Middle Preclassic public platform, a Late Preclassic temple-building with a dedicatory skull cache, an enclosed ritual space fronting a Protoclassic architectural mask, an Early Classic termination of that mask, and a Teotihuacan-style circular burial crypt.

**Bachand, Holly (University of California, Berkeley)**[166] *Stylistic Linkages of Formative Period Seals from the Ulua Valley Honduras*

A study of approximately 300 seals positions the lower Ulua Valley within a Mesoamerica-wide tradition of Formative period material practices. Middle Formative seals from Puerto Escondido and Playa de los Muertos exhibit similar construction and motifs to contemporary seals from Chiapas, the Gulf Coast and the Valley of Mexico. However, these objects are strikingly different from seals found elsewhere in Honduras. The use of seals, most likely to mark the body, linked residents of early Ulua villages to a larger cultural idiom while simultaneously differentiating them from neighboring regions.

**Backer, Anna (Alpine Archaeological Consultants, Inc.)**[105] *Trends in Prehistoric Storage in the Kern River 2003 Expansion Corridor*

In the eastern Great Basin, Formative subsistence-settlement systems involved foraging and horticulture with some storage of foodstuffs. This overview presents archaeological evidence for storage behavior in prehistoric villages in the project area. It is based on the study of a large database of excavated Formative habitations and field houses, identified as Fremont and Virgin Anasazi. Comparing the materials and design of storage facilities reveals significant differences in storage technology and storage capacity between northern and southern settlements, reflecting systemic differences. Trends in the organization of storage throughout the Formative are discussed.

**Backhouse, Paul (Museum of TTU & Bournemouth University), Eileen Johnson (Museum of TTU), Alejandra Matarrese (Museum of TTU & Universidad Nacional de La Plata), Dan Rafuse (Museum of TTU) and Blake Morris (Museum of TTU)**[27] *Hearth Life: An Actualistic Examination of Post-depositional Processes on Upland Hunter-gatherer Camp Site Assemblages*

Thermal features are universally ubiquitous and frequently archaeologically encountered components of hunter-gatherer campsites. On the Southern High Plains, prehistoric hunter-gatherer camps and thermal features appear to be positioned preferentially in upland locations such as along the rims of the drainage system. These upland settings generally are low-energy depositional environments. Actualistic experimental research has been undertaken in order to understand further the post-depositional morphological processes effecting a simulated abandoned camp area. Results indicate that while the thermal feature underwent significant morphological transformation, little variability was detected in the spatial locations of the surrounding "artifact" scatter.

**Bader, Anne T. (AMEC Earth and Environmental)**[127] *A Month of Sundays: Lessons Learned from the Meyer Site Excavations, Southwestern Indiana*

Professional opinions regarding amateur archaeological societies generally follow one of two lines of thought. Some believe professional involvement with such groups represents a form of public service, where professionals do all the giving and amateurs reap all the benefits. Others look upon amateurs as a source of free labor, where professionals are the principal recipients at the cost of volunteers. Both of these are one-sided, and neither is particularly satisfying. Today's professional-amateur alliances should be more appropriately described as partnerships. This paper addresses this issue through recent experiences of the Falls of the Ohio Archaeological Society at the Meyer Site.

**Bailey, Geoff (University of York), James Barrett (University of York), Ol Craig (University of York) and Nicky Milner**[119] *An Ecological History of the North Sea Basin*

The North Sea is one of the world's more productive marine environments, with its extensive, shallow continental shelf and high levels of nutrient mixing. Early coastal archaeology exposed by isostatic rebound and underwater discoveries at one chronological extreme, and modern over-exploitation of the cod fishery at the other, offer insights into a 13,000 year history of human exploitation. We will review key developments in this long-term history, emphasising the significance of the sea as a unifying focus for populations in adjacent regions, and highlighting new techniques for identifying long-term changes in marine productivity and intensity of human exploitation.

**Bair, Daniel (Brigham Young University), Marco Alvarez (Brigham Young University), Richard Terry (Brigham Young University), Charles Golden (Brandeis University) and Andrew Sharer (Texas A&M University)**

[50] *Soil Resources of the Ancient Maya in the Parque Nacional Sierra del Lacandon, Guatemala*  
Ancient Maya agricultural practices in the Usumacinta River Basin of Guatemala varied over time and space during 2000 years of settlement. To learn more about these practices, soil profiles were sampled during the 2004 season of the Sierra del Lacandon Regional Archaeology Project, following a transect, between the Classic period settlements of Esmeralda and Tecolote. This transect crossed dramatic topographic changes as well as ancient political boundaries between the kingdoms of Piedras Negras and Yaxchilan. The authors analyzed physical and chemical properties of the soils and the stable carbon isotope ratios that indicate C4 crop cultivation. The data suggest that maize was cultivated extensively but not uniformly.

**Bair, Daniel [50]** see *Burnett, Richard*

**Baird, Keith (Michigan Technological University)**

[28] *Use of GIS for Managing Cultural Landscapes: A Case Study at Coal Creek, Yukon-Charley Rivers National Preserve, Alaska*

A Geographic Information Systems (GIS) is an effective tool for integration and spatial analysis of the many data sources necessary for effective cultural landscape management. Located in the Yukon-Charley Rivers National Preserve in East-Central Alaska, Coal Creek is a placer mining site in operation from 1935 to the 1970s. Using data collected by Michigan Technological University students in 2004, the GIS for the 1500 acre site effectively brings together spatial information, archaeological documentation, recent and historical photographs, and historical maps in a format useful to archaeologists and others charged with protecting cultural resources.

**Baker, Shane (Idaho Power Company)**

[63] *The Block 49 Cemetery: Evidence of Nineteenth-Century Mormon Mortuary Practices*  
Salvage excavations at the Block 49 Pioneer Cemetery in Salt Lake City presented a unique opportunity to examine nineteenth-century Mormon mortuary practices as reflected by the earliest cemetery in Utah. Complete excavation of all identifiable burials in the cemetery allowed a population-level examination of both mortuary practices and the osteobiology of the emigrant group which founded Salt Lake City. Data from the cemetery demonstrate that Mormon burial practices during this period reflect both the changing patterns in contemporaneous mortuary behavior in nineteenth-century American culture, as well as some behaviors unique to the Mormon subculture.

**Balasse, Marie (CNRS), Anne Tresset (CNRS), Keith Dobney (University of Durham) and Stanley Ambrose (University of Illinois UIUC)**

[130] *Stable carbon isotope evidence for winter feeding on seaweed in the Neolithic of Scotland*  
Seaweed foddering is documented over the past fourteen centuries in Northwestern Europe. Tooth enamel stable isotope analysis shows that modern seaweed-eating sheep from North-Ronaldsay Island have high delta 13C from feeding on seaweed, and low seasonal amplitude delta 18O possibly from ingesting oceanic water. Analyses of Scottish Neolithic sites show that at the Knap of Howar, 3600 BC, sheep and cattle grazed only terrestrial plants. At the Holm of Papa Westray, ca 3000 BC, sheep consumed fresh seaweed during the winter. These data suggest that the physiologically specialized adaptation to a seaweed diet began by 3000BC.

**Ball, Joseph**

[81] *Composite Assemblages vs. "Mixed Deposits:" A New Look at the Preclassic in the Northern Maya Lowlands*

Conventional wisdom regarding Middle Preclassic and earlier ceramic assemblages from the Maya lowlands holds these to be typologically monolithic entities difficult to chronologically facet or otherwise subdivide and opaque as to their possible ethnic or linguistic associations. Through a meticulously fine-grained analysis of such collections from the Belize Valley, the author has shown this to be untrue and has presented an approach for penetrating their accepted ethnocultural "inscrutability." This paper applies a similar approach to newly recovered Middle Preclassic collections from central Campeche to reveal the likely multicultural complexities underlying later Classic era traditions of the Northern Maya Lowlands.

**Ball, Joseph [148]** see *Taschek, Jennifer*

**Ball, Joseph W. [159]** see *Williams-Beck, Lorraine*

**Ball, Terry (Brigham Young University), Edmond De Langhe (Royal Museum of Central Africa Tervuren, Belgium), Luc Vrydaghs (Laboratory of Crop Improvement and INIBAP Heverlee, Belgium) and Jason Manwaring (Brigham Young University)**

[164] *Morphometric Analysis of Wild and Domestic Banana Phytoliths*

Banana was apparently first domesticated in Papua New Guinea and the surrounding areas. Domesticated varieties were subsequently introduced into other tropical areas. Phytolith analysis may prove to be an efficient tool to document the spread of banana and its accompanying culture. As *Musa accuminata* and *M. balbisiana* are the two species basic to banana domestication, analysis of their phytoliths constitutes a first step towards the development of algorithms for interpreting banana phytoliths recovered from archaeological contexts. This contribution reports a first attempt using computer-assisted image and statistical analysis to discriminate between phytoliths extracted from *Musa accuminata* and *M. balbisiana* based on their morphometries (measurements of size and/or shape).

**Ballagh, Jean (SWCA Environmental) and David Phillips (Maxwell Museum, UNM)**

[15] *Rediscovering Pottery Mound*

Although excavations took place at Pottery Mound from 1954 until 1989 (or later), Frank Hibben never completed his projected comprehensive report on the site. In 2003, the Maxwell Museum located student notebooks and maps from the project, making it possible for a new generation of scholars to study this important but poorly understood site. This paper describes the available documents and collections from Pottery Mound, the effort to prepare reports on the various field seasons, and the initial results of that effort.

**Bamford, Marion [77] see van der Merwe, Nikolaas J.**

**Bamshad, Michael [85] see Jorde, Lynn**

**Barako, Tristan (White-Levy Program for Archaeological Publication)**

[110] *Politicizing the Philistines*

Few ancient peoples have been as politicized throughout history as the Philistines. Recently, for example, their memory has been pressed into service by both Palestinian and Israeli nationalism. Noting the similarity in names, some Palestinians see in the Philistines their distant ancestors, a lineage that stakes a claim to primacy in the land. Archaeological excavations, however, clearly indicate that the Philistine material culture is Aegean in origin, a feature frequently noted by pro-Israeli advocates. It is paradoxical, then, that like-minded editorialists utilize the biblical trope of the ancient Philistine to demonize the modern Palestinian.

**Baram, Uzi (New College of Florida)**

[153] *In the Public Interest: The Promise and Paradoxes of Heritage Tourism*

With the rapid growth of the tourist industry, archaeology is being drawn into heritage tourism. Recent studies have examined the intersection of archaeology and tourism within globalization. The extant discussions have raised the promising potential of partnerships as well as caveats that parallel concerns raised by studies of archaeology in the service of nationalism. This paper will explore the good intentions of new endeavors in heritage tourism, focused on those incorporating archaeology within their presentations and critically consider their implications. A case study from Florida is used to problematize the notion of public, with consequences compared in global perspective.

**Barba, Luis (Instituto de Investigaciones Antropológicas-UNAM) and John E. Clark (Brigham Young University)**

[134] *Probing the Invisible: Delimiting a Buried Olmec Site in the Soconusco, Mexico*

This paper presents results of the application of geophysical techniques in March of 2004 to delimit deeply buried occupational surfaces and features at the early Olmec site of Canton Corralito, in the Mazatan region, of coastal Chiapas, Mexico. Because of local environmental conditions, this site lies buried under one to two meter of river deposits; it was only found, by accident through well-digging activity. Sections of the site were mapped with georadar, magnetometry, and resistivity. Some of identified anomalies and surfaces were checked for ground truth a month later through deep and extensive excavations. These showed that the radar had indeed identified occupational surfaces accurately two meters below the current surface.

**Barberena, Ramiro [106] see Barrientos, Gustav; [156] see Martin, Fabiana**

**Barela, Tim (WSU - Vancouver), Heather Lehman (WSU - Vancouver) and Steve Weber (WSU - Vancouver)**

[60] *The Implications Surrounding the Use of a Neural Network to Facilitate Archaeobotanical Analysis*

The development of a neural network for pattern recognition presents a significant opportunity for archaeobotany. Utilizing an artificial intelligence to work within the application of a digital archive, seeds and other plant parts can be sorted, typed and cataloged with a minimum expenditure of time and effort. This paper explores the application of this approach to archaeobotanical remains recovered from the second millennium B.C.E. site of Harappa, Pakistan.

**Barela, Tim [14]** see *Weber, Steve*

**Barker, Alex (Milwaukee Public Museum) [115]** *Discussant*; [64] *Discussant*

**Barker, Graeme (University of Cambridge)**

[43] *The Transition from Foraging to Farming in the Rainforests of Island Southeast Asia: The Evidence of the Niah Caves, Sarawak*

The traditional thesis for the beginnings of farming in Island Southeast Asia is that Austronesian-speaking farmers spread southwards from Taiwan (and ultimately the Chinese mainland) c.4000 years ago, bringing rice and livestock with them. Another theory is that indigenous foragers began to cultivate forest foods earlier in the Holocene, and/or that rice and pigs were first used as status rather than staple foods. The paper discusses the light thrown on those various scenarios by evidence from new investigations in and around the Niah Caves situated in the lowland rainforests of Sarawak (Malaysian Borneo), including faunal and botanical remains within the cave and palynological cores taken in the surrounding landscape.

**Barkouk, Youssef (Damascus University), Fatima Hajmoussa (Damascus University) and Nicholas Kouchoukos (University of Chicago)**

[92] *The Effects of Protection on Natural Plant Cover in Jabal Abdelaziz, Syria*

Collaborative research between Damascus University and Yale University studied the effects of protection and management on semi-arid steppe vegetation in Jabal Abdelaziz (Syria). Intensive ecological field surveys were combined with multi-spectral satellite imagery and long term meteorological records to develop: 1) a detailed plant cover map, 2) a description of seasonal vegetation dynamics, and 3) an analysis of the effects of precipitation and land-use on vegetation type and distribution. Frank Hole played a central role in research design. In his honor, we present our results and their implications for understanding the interactions between people, climate, and environment in southwest Asia.

**Barlow, Renee [51]** see *Jones, Kevin T.*

**Barnard, Hans (Costen Institute, UCLA)**

[21] *Theory and Practice of Archaeological Residue Analysis and the Round Robin Experiment*

In order to better understand the organic residues found in 4th-6th century CE potsherds (Eastern Desert Ware, from the desert between the Nile and the Red Sea), twenty-five food stuffs were prepared in new vessels (tagen). The crushed walls of these vessels were analyzed using various methods of mass spectrometry and gas chromatography to be compared with data from archaeological material. Sherds of one vessel (X-11) were circulated among participants of this symposium (the round robin experiment), which was initiated as a platform to discuss the problems and possibilities of archaeological residue analysis.

**Barnard, Hans (Cotsen Institute, University of California, Los Angeles) [46]** *Discussant*

**Barnes, Ben (Florida State University/Lone Mountain Archaeological Services)**

[118] *Predictive Modeling as a Residual Aspect of Settlement Pattern Analysis*

Advances in computational power, software architecture, and data storage capacity have facilitated increasingly higher-resolution examinations of site distributions on regional scales. This paper presents evolving aspects of exploratory spatial data analysis examining site distributions, regional landscape associations, and several environmental variables for two distinctly different regions and time periods: Pueblo period occupations of the Mogollon Rim in Arizona and Paleoindian and Archaic occupations of the Florida peninsula. The methods used to examine these site distributions produce data layers applicable to incident modeling, allowing GIS based graphical representations of analysis results to serve as site probability models for both regions.



**Bar-Oz, Ofer** [130] *see* Munro, Natalie

**Barrett, James** [119] *see* Bailey, Geoff

**Barrientos, Gustavo (CONICET, INAPL), Ramiro Barberena (CONICET, IMHICIHU), Juan Bautista Belardi (UNPA-UARG), Luis Alberto Borrero (CONICET, IMHICIHU) and Agustín Rafael Goñi (INAPL)**

[106] *Calibrated Radiocarbon Dates and the Human Peopling of Southern Patagonia: A Review*

The aim of this paper is to present a discussion of the human peopling of Southern Patagonia, fundamentally based on the temporal and spatial distribution of calibrated radiocarbon dates. Comparisons with paleoenvironmental proxies (e.g., temperature curves) at both, hemispheric and regional scales will be made, in order to discuss the distributional pattern of the radiocarbon dataset. Finally, a critical appraisal of the advantages and disadvantages of the approaches that use the radiocarbon dates as data will be made, especially focusing on the demographic implications of such analyses.

**Barton, Huw (University of Leicester)**

[43] *Hunter-gatherer Technology and Mobility in Sundaland: a Long-term Perspective from Niah Cave, Sarawak*

Human occupation of a lowland rainforest site, Niah Cave in Sarawak, Malaysia, is now confirmed to date from at least 44,000 years BP, using the new ABOX-SC pre-treatment technique. Evidence of human use of the cave has been found in a range of deposits dating from the late Pleistocene period to the mid-Holocene. The results of an analysis of stone tool usewear and organic residues including starch grain analysis, suggest that humans were well prepared to deal with the complexities of rainforest occupation from the earliest evidence of their arrival in Borneo.

**Bar-Yosef, Ofer (Harvard University)**

[121] *Punctuated Equilibria in Old World Prehistory*

The major cultural changes during the 2.5 Ma of human evolution are punctuated by revolutions that in every case took place in a particular core area. Transmission of the new tools, and/or economy packages occurred through diffusion, acculturation, and/or migration or the combination of all. We have a better knowledge of how new technologies emerged, dispersed and impacted populations outside the core area during historical times (the Industrial Revolution), reasonable data concerning the Neolithic Revolution, less about the Upper Paleolithic Revolution, and many ambiguities concerning earlier ones. Strategies for reaching improved data sets and interpretations will be discussed.

**Basquez, Alberto** [87] *see* Chapa, Reymundo

**Bates, Brian (Longwood University), Katie Bowen (Longwood University), Crystal Clardy (Longwood University), Will Pettus (Longwood University) and Sue South (Longwood University)**

[3] *The Staunton River Battlefield State Park Archaeological Research Project*

A collaborative research project of the Longwood Archaeology Field School and the Virginia Department of State Parks that began in 1996 as an investigation into a small Civil War battle became a long-term investigation of a Late Woodland Amerindian village. The prehistoric site was identified within the park property during the first year of the project and quickly became the primary focus of the research. The results of the excavations at the National Register listed prehistoric site including an analysis of funerary practices are considered.

**Bates, Brian** [50] *see* Bikowski, Emily

**Batten, David C. (Eastern New Mexico University)**

[69] *Salinas to Pecos: Late Prehistoric Settlement in East-Central New Mexico*

Long distance trade between Great Plains hunter-gatherers and Puebloan agriculturists increased dramatically in the last few hundred years before European contact. One could argue that new sites would have been located to take strategic advantage of developing trade between the regions. Sites located for this purpose should line up along least-energy-cost pathways from bison source areas to eastern Pueblo population centers. This paper uses a GIS platform to calculate and display such pathways between the Estancia Basin and the Pecos River, exploring this and alternate explanations for site location, using electronic data distilled from New Mexico's Archaeological Records Management Section.

**Bauer, Alexander (University of Pennsylvania) and Arun Abraham (University of Pennsylvania)**

[107] *Archaeological Stewardship and Capabilities: Reconciling Preservation and Development*

As archaeologists' awareness of the social contexts within which we operate increases, there is growing concern that our work helps rather than hinders the well-being of the communities we interact with. This has raised the question of whether our self-imposed disciplinary mandate, embodied in the Stewardship Principle, to protect cultural heritage conflicts with broader ethical responsibilities to living people. This paper argues that Amartya Sen's Capability Approach provides an integrated perspective that allows for cultural heritage to be adequately accounted for as a constitutive value that enables people to pursue the kinds of life that they have reason to value.

**Bauer, Brian S. (University of Illinois, Chicago) and Lucas Kellett (University of New Mexico)**

[49] *Evaluating the Defendability of Chanka Hilltop Settlements in Andahuaylas, Peru: A GIS Analysis*

It is commonly held that after the Wari collapse, a period of conflict ensued in the central Andean highlands without the presence of state control. This era, the Late Intermediate Period, reveals a distinct hilltop settlement pattern believed to reflect regional conflict among local polities. The Chanka ethnic group is used as a case study to test this conflict model. Survey data from the Chanka Archaeological Project is incorporated into a GIS and used to test a series of archaeological correlates indicative of regional competition and warfare.

**Bauer, Jeremy [12] see Estrada Belli, Francisco**

**Bawden, Garth (University of New Mexico) [18] Discussant**

**Baxter, Erin (Crow Canyon Archaeological Center)**

[94] *Electrical Resistance Survey at Albert Porter Pueblo, Southwest Colorado*

This poster shares the results of an electrical resistance survey conducted at Albert Porter Pueblo. This 12 acre site, excavated by the Crow Canyon Archaeological Center, is characterized by a Pueblo II and III occupation with a "big bump" surrounded by smaller satellite pueblos. Results of the resistance survey indicate the presence of an additional 36 pitstructures, linear features, rooms, and middens, that were previously undetected. This poster will demonstrate methods used to collect these data and illustrate the use of electrical resistance surveys as a valuable tool to develop better strategies for testing and mapping sites in this region.

**Baxter, Jane Eva (DePaul University)**

[24] *The Stories behind the Numbers: Gendered Perceptions of Archaeology among its Practitioners*

The recent (2003) SAA Member Needs Assessment Survey included a series of questions sponsored by the Committee for the Status of Women in Archaeology. These questions focused on several potential issues for women in archaeology today including publishing, funding, and conference opportunities; sexism and the glass ceiling syndrome in the workplace; and juggling a family and a career. Reviewing the results of this survey along with the variables of age and gender provide interesting insights as to how women's issues are perceived by different demographics within the SAA.

**Baxter, Jane Eva [24] see Lurie, Abbie**

**Bayham, Frank (California State University, Chico) [130] Discussant**

**Beaver, John (University of Illinois-Chicago/National Museum of the American Indian)**

[74] *"...and I am Waiting for a Reconstructed Mayflower to Reach America. . ."*

For many American Indians, the practice of anthropology has been not only problematic but also controversial. American Indians have cited a total absence of communication and sensitivity exhibited by many anthropologists, most particularly archaeologists, as the major sources of conflict. Furthermore, it can be argued, anthropologists often present their conclusions in a manner that has little or no relevance to the people being examined. This paper will illustrate the importance of repatriation and "indigenous archaeology" to anthropological practice and how they as applied methodologies can work to address the "disconnect" of anthropological practice from those communities and cultures it studies.

**Beck, Charlotte (Hamilton College) and George T. Jones (Hamilton College)**

[88] *Early Paleoarchaic Point Morphology and Chronology*

Paleoarchaic culture history is poorly constrained, limited by inadequacies of projectile point typology and radiocarbon dating. This is especially true of fluted points, presumed to mark the earliest human occupancy of the region. We recently raised questions concerning whether Great Basin fluted points and those of Clovis affiliation are contemporaneous and if projectile points of stemmed morphologies are comparably ancient. Current data suggest that Great Basin fluted points persist later than the Clovis interval and may undergo systematic morphological changes as do fluted points in other North American regions. Here we present additional data and examine these arguments further.

**Beck, Charlotte [88]** see Craven, Sloan

**Beck, Margaret (Statistical Research, Inc.)**

[135] *Midden Ceramic Assemblage Formation: An Ethnoarchaeological Perspective*

Archaeological middens provide large samples of cooking and other household vessels, but how do these samples relate to household vessel assemblages in use? The Kalinga Ethnoarchaeological Project in 2001 focused on midden formation and the creation of midden ceramic assemblages. Our study community was Dalupa, an upland village in the Pasil River Valley, Kalinga Province, Philippines, with 380 residents. Specific research topics included the association of middens with particular households, the representativeness of the midden sample, and how the condition of midden sherds reflected midden formation and disturbance processes. After summarizing our results, I discuss possible applications of our work.

**Becker, Rory (University of Wyoming)**

[40] *Faunal Analysis and Ethnohistory: Breathing New Life into Old Bones*

The study of animal bones from archaeological sites has the potential to move beyond basic evaluations of diet and environment towards issues that concern gender, social class, ethnicity, and cultural identity. The kinds of foods people eat and the manner in which animals are butchered and prepared are daily practices that leave tangible evidence in the form of faunal remains that can be used to explore these issues for peoples in the past. This paper will discuss the potential for zooarchaeology to inform our understanding of complex issues such as identity and ethnicity through an example from the Great Lakes fur trade.

**Beehr, Dana (University of Illinois, Urbana) and Stanley Ambrose (University of Illinois, Urbana)**

[46] *Reconstructing Mississippian Diet in the American Bottom with Stable Isotope Ratios of Pot Sherd Residues*

Carbon and nitrogen isotopes of carbonized residues were analyzed from interior surfaces of 88 ceramic vessels from five contemporary early Mississippian American Bottom sites. Average proportions of maize in upland Richland Complex sites ranged from 7% at a small rural farmstead, to 17% to 42% at three larger sites. Sherds from the Cahokia sub-Mound 51 feasting pit averaged 36% maize, even though macrobotanical remains of maize were very rare. Nitrogen isotope ratios of eight sherds from Cahokia clearly show meat was cooked in one vessel. Potsherd residue isotopic analysis provides a powerful tool for reconstructing dietary practices in Eastern North America.

**Begley, Christopher (Transylvania University)**

[13] *The Southern Boundary of Mesoamerica during the Postclassic: A View from the Mosquito Coast of Honduras*

This paper focuses on the relationship between Postclassic populations in the Mosquito Coast of Honduras, along the southern boundary of Mesoamerica, and their neighbors, including Mesoamerican groups to the north and non-Mesoamerican cultures to the south. The Mosquito Coast sits in the transitional area between that which is undeniably Mesoamerican and that which is not, and patterns of material culture suggest a dynamic and complex relationship with both areas. Recent research illuminates use by local elites of Mesoamerican templates of site planning and public construction as a means of gaining and maintaining political power, while also utilizing non-Mesoamerican elements common in Lower Central America. Here, the early Postclassic Period is examined, when groups of the Mosquito Coast increased in size and complexity while moving between Mesoamerican and non-Mesoamerican patterns of material culture.

**Beisaw, April (Binghamton University) and Della Stumbaugh (Binghamton University)**[124] *Differentiating the Dogs: Morphological and Ancient DNA Analysis of Canid Remains*

The Engelbert Site, a large multicomponent (Archaic to Contact) site in New York State, contained the remains of at least eight canids; two were recovered from features described as dog burials, the others were fragmentary remains mixed with other faunal material, in feature fill. Attempts to evaluate the potential for these remains to represent different species were hampered by the highly fragmentary nature of the remains and, in some cases, significant weathering. In addition to morphological analysis, a tooth from each canid was submitted for ancient DNA analysis. This paper presents the methods used and the results of these analyses.

**Belardi, Juan Bautista [106]** *see Barrientos, Gustavo*

**Belfer-Cohen, Anna (Hebrew University, Jerusalem) and Nigel Goring-Morris (Hebrew University, Jerusalem)**[44] *Where Did They Come From and Where Did They Go? Early Upper Palaeolithic Developments in the Eastern Mediterranean*

Notwithstanding the shift from flake to blade/let based industries, the early Upper Palaeolithic in the Near East actually displays considerable evidence for continuity from the preceding local late Middle Palaeolithic in terms of the lithic assemblages. This broadly parallels the behavioural changes associated with modern humans, which also appear to be generally incremental. Nevertheless, it seems that the somewhat later Levantine Aurignacian is intrusive to the area, displaying many characteristics typical of the central and west European classic Aurignacian. In this paper we discuss possible explanations of this phenomenon.

**Belfer-Cohen, Anna [133]** *see Goring-Morris, Nigel*

**Bellelli, Cristina [156]** *see Scheinsohn, Vivian*

**Bello, Charles [124]** *see Dillian, Carolyn*

**Benden, Danielle (University of Colorado-Boulder) and Sheila Goff (University of Colorado-Boulder)**[111] *The Castle Park Region (Northwestern Colorado) Revisited: A Reanalysis of Perishable Materials from Archaeological Cave Sites*

A reanalysis of the technology and raw materials of perishables from archaeological cave sites in the Castle Park Region leads to a better understanding of the origins and social relationships of the Fremont people. This paper offers a more in-depth evaluation of the Castle Park perishables, excavated by and curated at the University of Colorado Museum in the early 20th century. Revisiting these materials several decades later is an attempt to determine whether the Fremont developed from the Desert Archaic or migrated to the Great Basin and if they interacted with people living in other regions of the Southwest.

**Bender, Susan (Skidmore College) and Edward Friedman (South Park Archaeology Project)**[27] *Understanding Petrified Wood as a Primary Lithic Resource in Colorado's Rocky Mountains*

Although petrified wood is frequently reported as a constituent of lithic raw material assemblages at prehistoric sites in the foothills and mountains of Colorado, it is rarely identified as a primary resource (cf. Gilmore et al. 1999, Black 2000). This poster explores the quarrying and reduction technologies associated with sites in South Park, Colorado where petrified wood comprises over 95% of the lithic assemblage and examines the potential for these sites to illuminate previously overlooked aspects of the region's prehistory.

**Bender Jørgensen, Lise (Norwegian University of Science and Technology)**[45] *Epistemology and Ontology of Craftsmanship*

Craftsmanship is transmitted by familiarity, obtained by daily, close contact with a master craftsman, as so-called tacit knowledge. Craftsmanship has a language of its own, consisting of movements and experience. Traditionally, this is perceived as utterly non-academic. This paper intends to explore the epistemology and ontology of craftsmanship, and ways to bridge the gap between tacit and verbalised knowledge.

**Bendremer, Jeffrey (Mohegan Tribe Historic Preservation Department) and Elaine Thomas (Mohegan Tribe Historic Preservation Department)**

[39] *A Tribally-Based Field School Program: Ten Years at Mohegan*

In the summer of 2004, the Mohegan archaeological field school completed its 10th field season. We discuss how field schools can promote and promulgate an indigenous archaeology as well as the compromises and accommodations archaeologists must make while working for the university versus the tribal government. Special attention is given to programmatic features field schools can implement to make archaeology relevant and to attract, train, and interest Native American participants. Emphasis is placed on how tribally-based archaeological field school programs can make an especially effective and valuable contribution to contemporary indigenous communities.

**Benfer, Robert [18]** *see Farnum, Julie*

**Benfer, Jr, Robert A. (University of Missouri-Columbia), Neil A. Duncan (University of Missouri-Columbia) and Bernardino Ojeda (Centro de Investigaciones de Zonas Áridas)**

[18] *A Kotosh Calender Temple in the Middle Valley of the Chillón at Buena Vista*

Coastal and middle valley preceramic sites such as El Paraíso/Buena Vista and Aspero/Cupicigarro (a.k.a. Caral) may represent multiethnic management of vertically stratified resources. A Kotosh-style temple at Buena Vista, with a temple alignment that clocks planting time, El Niños, and llama movements, suggests northern seminomadic sierran origins of an economic system that permitted sedentism in the Chillón Valley. Plant, animal and molluscan offerings in the Buena Vista temple make evident symbolic importance of varied resources. Adapted to increasing climatic instability, this system enjoyed demographic success in the Formative Period, until the introduction of new disease from trade and pilgrimages to the lowland.

**Benitez, Leonardo (University of Pennsylvania)**

[87] *Celestial Calendars at Tiwanaku: Astronomical Alignments in the Semi-Subterranean Temple and the Kalasasaya*

Widespread debates exist over the extent to which astronomical events played a role in the design of pre-industrial cities. Preliminary archaeoastronomical research completed during the 2004 field season has confirmed previous claims of precision and care taken to align architectural features to key celestial events and bodies. Megaliths, staircases and gateways in the Semi-Subterranean Temple and Kalasasaya show an unmistakable intentionality and orientation to stellar and solar events. This research proposes additional astronomical alignments and explores the manner that new monumental construction either absorbed or eliminated previous alignments in the transformation of the ritual core over time.

**Bennett, Gwen P. [55]** *see Peterson, Christian E.*

**Bense, Judith (University of West Florida) [114]** *Discussant*

**Bentley, Nick [87]** *see Chapa, Reymundo*

**Berdan, Frances (California State University, Santa Barbara)**

[42] *Reconstructing Ancient Aztec Super Glue*

The ancient Aztecs (Mexico) and their neighbors manufactured essential adhesives from a variety of natural substances. Especially enigmatic among these resources were various orchids whose roots and pseudobulbs reportedly produced gums of extraordinary quality. The problems of (1) identifying the specific orchid materials used, (2) the differential effectiveness of various orchid materials as adhesives, and (3) the probable techniques used in gum production are approached from three different perspectives: ethnohistory, experimental archaeology, and chemistry. The methodology of each is applied to the reconstruction of the adhesives; in combination, these approaches yield a meaningful and integrated set of results.

**Berdan, Frances (California State University) [13]** *Discussant*

**Berg, Caryn (University of Denver)**

[24] *The Stories behind the Numbers: Gendered Perceptions of Conference Opportunities*

The recent SAA Member Needs Assessment Survey included a series of questions sponsored by the Committee for the Status of Women in Archaeology. One of these questions focused on perceptions of inequity with regard to invitations to participate in symposia, workshops, and other conference opportunities. It is noted in the survey results that 35 percent of the women surveyed perceive an inequity. This poster presents cases, insights, stories, and strategies from women and men in all parts of our discipline about this issue and suggests strategies to alleviate this inequity in the future.

**Berge, Dale L. [63]** *see Schuyler, Robert L.*

**Bergin, Sean (University of Tulsa)**

[94] *Diachronic Change of Chipped Stone during the Early Medio Period of Chihuahua, Mexico*  
Ceramic typologies have been the traditional focus for archaeological analyses of the Medio Period (ca. AD 1200 - 1475) in the Cases Grandes region, Northwestern Chihuahua, Mexico. Much less is known about the lithic industries of the region, and no reports have been published on the chipped stone of the Early Medio. Recent excavations (1999 - 2002) at the site of La Tinaja by Whalen and Minnis have included large stratified Early Medio Period middens. This study examines the chipped stone data excavated from these middens in order to understand diachronic change from the Early to Late Medio.

**Berman, Mary Jane (Miami University)**

[135] *Temper Tantrums or How to Get Fired in the Prehistoric Bahamas*  
Ceramics from two early sites on San Salvador, Bahamas, provide a unique opportunity to examine ceramic reproduction and innovation by a population that colonized an environment containing different raw materials from its homeland. How people use dissimilar resources in a new landscape to create vessels that resemble the homeland assemblage is important for understanding colonization. How do settlers reproduce a pre-existing technology with different materials? How do they modify production steps and techniques? What do they delete and what is substituted? How can ethnoarchaeology advise on the study of technological transfer, in this and other island situations?

**Bernardini, Wesley (University of Redlands)**

[48] *Jeddito Yellow Ware and Hopi Ethnogenesis*  
The production of Jeddito Yellow Ware (JYW) began in the early 14th century and coincides with the emergence of the population and cultural identity known today as the Hopi Tribe. Because very little non-local pottery was imported into Hopi villages after A.D. 1300, and because JYW was widely distributed over Arizona and New Mexico, understanding the production and movement of this ware is central to many questions about both internal Hopi developments and external interactions. This paper summarizes the current status of answers to such questions as addressed through a large INAA database of JYW from both on and off the Hopi mesas.

**Bernbeck, Reinhard (Binghamton University) and Randall McGuire (Binghamton University)**

[153] *Reflections on Ideology and Theory in Archaeology*  
Archaeologists create an image of the past from empirical observations that we transform into meaningful, coherent narratives. This transformational process is theory driven. Our narratives are always partial understandings that necessarily misrepresent the past. Ideology is at work in the theory-based creation of these misrepresentations because it depicts specific interests as general ones. Thus, theory as a generalizing mode of thought is inherently ideological. The ideologies behind archaeological theories spring from socio-political contexts. A critique of the ideology of theories implies both an investigation of the relationship between theories and societal interests as well as their internal rules of misrepresentation.

**Bettinger, Robert (University of California, Davis) [121]** *Discussant*

**Betts, Matthew (Canadian Museum of Civilization)**

[76] *A Multicontextual Approach to Zooarchaeology: Pattern Recognition, Systematics, and the Analysis of Regional Faunal Assemblages*  
Large, complex databases cannot be adequately comprehended with narrow methodologies and polarized theoretical frameworks. Taking part in an emerging disciplinary trend that supports greater integration of archaeofaunas with diverse datasets and theory, this paper introduces a multicontextual technique for the analysis of multiple faunal assemblages. Utilizing a repeated sequence of pattern recognition and systematics, multiple interpretative frameworks, or contexts, are imbedded into the analysis. The reconstruction is therefore layered in the sense that each context adds a unique stratum of information that interacts with and builds on another, providing a richer, more deeply contextualized, understanding of the faunal assemblages.

**Betts, Matthew [9]** *see Ryan, Karen*

**Bevan, Bruce [40]** *see Lynott, Mark*

**Bever, Michael (University of Texas at Austin)**

[106] *Problems with the Putu Site (PSM-027) of Arctic Alaska: Results of a Reexamination of the Lithic Assemblage*

Discovered over thirty years ago, Putu remains one of the few Alaskan sites that have produced fluted points in an excavated context. The site also produced a questionable terminal Pleistocene radiocarbon date. The potential importance of Putu cannot be disputed, for it also contains other technologies possibly Pleistocene in age, like blades and Paleoindian lanceolate points. Indeed, Putu figures one way or another in most syntheses of the Pleistocene Alaskan record. However, reanalysis of the site assemblage indicates a number of likely insurmountable problems. These problems cast doubt on the ability of the site to contribute substantively to Alaskan prehistory.

**Bezerra de Almeida, Marcia (Universidade Católica de Goiás/IGPA) and Rosana Najjar (IPHAN)**

[156] *'Semiophor of Richness': Reflections on the Traffic of Archaeological Objects in Brazil*

In this paper we discuss the mechanisms of appropriation of the archaeological heritage through a perspective that articulates the notion of public and private, considering as a case study the traffic of cultural properties in Brazil, especially the archaeological objects that supply the antiquities market in Brazil and abroad. The analysis of data provided by organizations UNESCO, Iphan, Interpol and the Federal Police, contributes toward the understanding of the process of transformation of the cultural properties into commodities, crystallizing the conflict of interests in the use of the patrimony as a semiophor of richness.

**Bicer, Katherine (MIT) and Heather Lechtman (MIT)**

[42] *Andean Bronze and the Middle Horizon*

During the Andean Middle Horizon several distinct bronze alloys developed within the Wari and Tiwanaku spheres of influence. North of Lake Titicaca Wari bronze artifacts were made almost exclusively from arsenic bronze. South of the lake, Tiwanaku artifacts were made either of tin bronze or a ternary copper-arsenic-nickel alloy. This pattern was maintained at Cerro Baul and Omo, Wari and Tiwanaku colonies in the Moquegua Valley. Chemical and lead isotope data of bronze artifacts from Conchopata, the large urban center 25 km from Wari, permit evaluation of the apparent non-exchangeability of ores and alloys between the two interaction spheres.

**Biehl, Peter F. (Martin-Luther-University Halle-Wittenberg, Germany)**

[31] *Conceiving Place in Neolithic Europe: A Contextual Approach to the Enclosure in Goseck, Germany*

In this paper I will present new contextual data from the fully-excavated Early Neolithic enclosure in Goseck/Central Germany. After introducing the site and my conception of space, I will suggest a new model for interpreting the function and meaning of Neolithic enclosures in Central Europe. I will also discuss issues of identity, memory, and the recreation of place in a ceremonial landscape. My model is based on contextual attribute analysis of material culture (both artefacts and architecture) and applies multi-vocal visualizations to settlement and life in the beginning of the Neolithic in Central Europe.

**Bikowski, Emily (Longwood University), Brian Bates (Longwood University), Johanna Autrey (Longwood University), Kelly Forman (Longwood University) and Jeff Sharrard (Longwood University)**

[50] *Caribbean Prehistory: The Jost Van Dyke Archaeological Survey*

Jost Van Dyke, located in the British Virgin Islands, was the focus of an archaeological survey in 1998. Cape Wright, the only site identified on the island, dates to the Elenan Ostionoid period and was probably occupied from between 670A.D. and 1100A.D. A long-term research project at the site was commenced in the summer of 2004 by the Longwood Archaeology Field School. The initial results of the excavation are presented and considered in the context of the late Ceramic Period in the Virgin Island Group.

**Bill, Cassandra (Middle American Research Institute)**

[148] *Classic-Postclassic Disjunction in Ceramic Technology and Style: Questions of Social Change and Problems in Type-Variety Analysis*

In some regions of the Maya area, there are clear continuities between Classic and Postclassic ceramic complexes; in others there is a marked disjunction between the pottery of the Classic period and that associated with later Postclassic occupation. At certain sites, including Pusilha, this disjunction takes the form of later assemblages that are much cruder and less technologically standardized than the well-made pottery of the Late Classic period. This paper considers what

such an abrupt break with earlier traditions may reflect, including the replacement of specialized production systems with simpler, more "expedient" industries, and the possible abandonment and later reoccupation of sites. Problems involved in applying a type-variety methodology in analyzing and comparing these types of Postclassic assemblages are addressed.

**Billeck, William (Smithsonian Institution)**

[102] *Repatriation at the National Museum of Natural History, Smithsonian Institution*  
Repatriation at the National Museum of Natural History is conducted under the National Museum of American Indian Act of 1989 as amended in 1996, and requires the repatriation of affiliated human remains, funerary objects, sacred objects, and objects of cultural patrimony. The museum has extensive collection of human remains and objects and has completed a large number of repatriations. Repatriation has led to increased interactions with the Native American community and is changing in the way the museum works with the Native American collections. The Repatriation Office has become one of the primary contact points for Native Americans interested in the museum's collections and records.

**Billeck, William [102]** see *Brummer, Betsy*

**Bingham, Robert [144]** see *Stark, Miriam*

**Binning, Jeanne Day (Caltrans)**

[150] *Lithic Reduction Analysis and the Holocene of the Central Mojave Desert*  
Percussion biface cores were the most popular core form employed by Holocene hunter-gatherers in the Central Mojave Desert of California and Nevada. When other types of percussion cores were used, data suggest they were reduced based, somewhat, on raw material morphology. Formal tools were more prevalent in the early Holocene and unmodified biface reduction flakes often served as tools later in time. Percussion bifaces, and the debitage they generated, become significantly smaller after the introduction of the bow and arrow. Using data from replicative experiments, explanations for these patterns and changes are suggested.

**Bird, Catherine (Arizona State University) and Tom Minichillo (University of Washington)**

[4] *Utilizing GIS in Examining Lithic Usewear and Retouch in the Middle Stone Age of Southern Africa*

Middle Stone Age (MSA) lithic assemblages are frequently dominated by coarse-grained raw materials, such as quartzite, with little evidence of formal retouch. Utilizing an MSA assemblage from Pinnacle Point Cave 13B, near Mossel Bay, South Africa, this poster attempts to resolve whether this absence is a product of prehistoric technological choices or of difficulty in observing retouch. After creating composites of positions of edge damage and retouch in a GIS database, the relationships between location, artifact form, and raw material type are explored statistically and visual summaries for comparison of retouch and edge damage between assemblages are produced.

**Bird, Douglas (University of Maine)**

[140] *Mardu Children's Foraging Decisions and Their Archaeological Implications*  
For nearly three decades researchers have used models from foraging theory in behavioral ecology to explain diachronic and synchronic variability in archaeological faunal and floral assemblages. However, we have very little data on how variability in age-linked tradeoffs in foraging might influence the archaeological signatures of subsistence activities. I present tests of some predictions from classic foraging models with new data on Mardu Aboriginal children's decisions, resource patch choice, prey selection, and processing in Australia's Western Desert. I then explore some broader archaeological implications of hypotheses related to age-lined differences foraging goals and constraints.

**Birk, Terry [26]** see *Haynes, Gregory*

**Bishop, Paul (University of Glasgow), Dan Penny (University of Sydney), Miriam Stark (University of Hawaii-Manoa) and David Sanderson (Scottish Universities Environmental Research Centre)**

[144] *Toward a Landscape Ecology of Funan: Palynological Records of Environmental Change from Southern Cambodia*

The Mekong delta is known to be the location of one of Southeast Asia's earliest states. Called Funan by visiting Chinese emissaries, this nebulous polity had key urban centers at Angkor Borei (Cambodia) and Oc-Eo (Vietnam). Pierre Paris first described of the canal system linking these



sites in the 1930's using aerial photographs. Recent field investigations of the canal system have produced paleoenvironmental sequences from Paris's canals two and four. Samples from these canals, and from the eastern baray at Angkor Borei, provide a new perspective on the environmental context of early state development in the lower Mekong River basin.

**Bishop, Ronald L. [48]** *see Triadan, Daniela*

**Biskowski, Martin (California State University, Sacramento)**

[47] *Lime Treatment, Tortillas, and Ancient Mesoamerica*

Thirty years ago, identifying the primary value of lime treatment to Mesoamerican cultures was a "solved" problem. Few archaeologists noticed when the solution - that lime treatment enhanced growth by increasing the availability of key amino acids - was disproved. Traditional maize preparation was a major focus of household life; our grasp of it informs our understanding of the symbolic value of food, the emergence of specialization, the exertion of state control, and many other diverse issues. Accordingly, this paper reconsiders the value of lime treatment and suggests why its substantial costs were accepted by prehispanic Mesoamericans.

**Biskowski, Martin [149]** *see Gueyger, Andrea*

**Bisson, Michael (McGill University)**

[83] *The Small Flakes from Tabun Cave, Israel: Evidence for Middle Paleolithic Technology and Behavior*

This paper describes the chipping debris recovered during the 1967-1972 re-excavation of Tabun Cave, Israel. On a bed by bed basis, this analysis of over 20,000 specimens reveals that technological attributes of these flakes closely correspond to expectations generated by a conventional typological analysis of cores, retouched tools and larger unretouched flakes from the same beds. However, the frequency of small flakes, including those generated by the retouch and resharpening of scrapers, was much lower in many beds than would be expected from overall artifact counts. The implications of these data as well as taphonomic issues are discussed.

**Black, Kevin [127]** *see Murphy, Terrence*

**Blackman, M. James [48]** *see Triadan, Daniela*

**Blackmore, Chelsea (UC Riverside)**

[86] *The Search for Commoner Identity: Archaeological Investigations at the Northeast Group, Chan, Belize*

Investigations of a Late Classic neighborhood at the site of Chan, Belize, consider how commoner populations were socially and economically diverse. Although authors have focused on the integration of such communities, few have explored the process of social differentiation and identity formation. By bridging feminist, agency, and class theories with archaeological data, preliminary evidence suggests that commoners were much more than the sum of their kinship ties. The general political and economic instability of the Late Classic affected rural communities, like Chan, giving commoners opportunities to exploit already established social positions and the potential to build new ones.

**Blackwell, B.A.B (Dept. of Chemistry, Williams College), M. Hassan (RFK Science Research Institute, Flushing, NY), Harold L. Dibble (Dept. of Anthropology, University of Pennsylvania), S.P. McPherron (Dept. of Human Evolution, Max Planck Institute, Germany)**

[62] *ESR Analyses at Roc de Marsal, Dordogne, France: Dating the Neanderthal Infant and Mousterian Assemblages*

At Roc de Marsal, a rockshelter near Les Eyzies, Dordogne, France, a Neanderthal infant as well as several Mousterian artefact assemblages were discovered in a matrix-supported silty conglomeratic cave fill. In 2004, new excavations yielded bovid teeth for ESR dating, as well as sedimentary and paleoenvironmental data for examining site formation processes and use. Sedimentary dose rates were assessed by volumetrically averaged geochemical analysis and TL dosimetry. Low U concentrations in the enamel and dentine ensure that the ESR ages are independent of the U uptake model. Preliminary ages from 14 subsamples indicate that Layer 14 correlates with OIS 5.

**Blackwell, B.A.B. [14]** *see Blickstein, J.I.B.*

**Blair, Lynda (HRC/UNLV) and Richard Orndorff (EWU)**[35] *Cleared Circles and Enigmatic Depressions*

Phenomena common to the desert southwest are cleared circles and depressions on the landscape. These features have previously been referred to as fragile patterns, caches, pit house depressions, and sleeping circles. In some instances, this assignment of cultural creation and use is clearly evident, while in other situations the features are much more problematical and may, in fact, be associated with natural processes. This paper offers a natural biologic/geologic pattern of cleared circle formation and a hydrologic explanation for enigmatic depressions within the geologic setting of a conglomerate-capped plateau along California Wash in southern Nevada.

**Blair, Lynda** [105] *see* *Wedding, Jeffrey*

**Blaisdell-Sloan, Kira**[166] *Agency and the Sociopolitical Landscape of Northern Honduras in the Postclassic to Colonial Period: Insights from Ticamaya*

Research on the late Postclassic and Colonial periods in Northern Honduras has long focused on Naco, emphasizing its centrality within the regional and interregional sociopolitical landscape. However, while Naco was prominent, it was only one of several prominent settlements in Northern Honduras at contact. Drawing on data from the Postclassic to Colonial period Ulua valley site of Ticamaya and using an agent centered perspective, this paper advocates a less centralized vision of Northern Honduras in which the agency of different communities both before and after colonization played a critical role in the survival of indigenous villages through the colonial period.

**Blaisdell-Sloan, Kira (University of California, Berkeley)** [41] *Discussant*

**Blake, Emma (University of Michigan)**[31] *Sardinia's Nuraghi: Strength in Numbers*

Sardinia's Nuragic people, spanning the Bronze and Iron Ages, constructed a profusion of stone monuments, most notably, the conical stone towers known as nuraghi. The fortress-like nuraghi suggest an extremely fragmented society, the towers barring cohesion rather than enforcing it. Yet these dispersed populations produced an extremely homogeneous, rich and discrete material culture, built structures that required neighborly cooperation, and reproduced themselves for a millennium: all despite the absence of a supralocal power. New approaches to communal space make it possible to conceive of these isolated powers, through their purposeful replication, as reinforcing community, not undermining it.

**Blickstein, J.I.B. (RFK Science Research Institute, Flushing, NY), B.A.B. Blackwell (Dept. of Chemistry, Williams College), P.J. Wrinn (Dept. of Anthropology, University of Arizona) and A.I. Krivoschapkin (Institute of Archaeology & Ethnography)**[14] *ESR Dates for the Paleolithic Hominid Site at Obi-Rakhmat, Uzbekistan*

In the Tien Shan Mt., northeastern Uzbekistan, the Obi-Rakhmat rockshelter has yielded newly discovered hominid teeth and cranial fragments showing both modern and archaic traits. These occurred associated with an abundant, blade-based industry having both Middle and Upper Paleolithic characteristics, and a rich faunal assemblage in typical cave fill. Because  $^{14}\text{C}$  and  $^{23}\text{Th}/^{234}\text{U}$  dates disagreed, three bovid molars were dated by standard and isochron ESR. With external dose rates at 800-1500  $\mu\text{Gy}$ , and high dentinal U concentrations producing high internal dose rates, accumulated doses of 215-305 Gy yielded preliminary ages for 16 subsamples all correlated with OIS 3 and 4.

**Blind, Eric (Presidio Trust)**[76] *Reckoning with Meaning at Contact Sites*

'Cultural contact' sites produce material with unique challenges to interpretation. Archaeologists are often the first to reckon with one of the foremost challenges - attributing cultural ownership and meaning to artifacts or features. This is especially relevant for sites where cultural boundaries exhibited degrees of permeability such as Spanish institutions of colonial California.

Archaeologists are certainly not the only ones to attribute meaning or ownership to artifacts. Popular media and the general public continue developing these cultural attributions as well. Cultural plurality and the continuum of 'contact,' affects historically constituted meanings as well as current attribution and interpretations of meaning.

**Blomster, Jeffrey (GWU) and Michael Glascock (MURR)**

[163] *Synchronic and Diachronic Changes in Obsidian Procurement in Formative Oaxaca, Mexico*

During the Formative period, villagers in Oaxaca - a region without a local source of obsidian - participated in various exchange networks to obtain this critical resource. Focused primarily on obsidian samples from the site of Etlatongo, in the Mixteca Alta of Oaxaca, this paper examines the nature of the sources utilized by the first occupants of this large village. Instrumental Neutron Activation Analysis reveals sources utilized by all villagers as well as obsidian exploited by individual households. Changes in these sources are traced during the Late Formative. These data are compared with those from other contemporaneous Oaxaca villages.

**Blythe, Ashley A. (Western Archeological and Conservation Center) and R. Emerson Howell (University of Arizona)**

[22] *The Whole Feast: Both Zooarchaeological and Paleoethnobotanical Evidence for Ceremonial Feasting at a Hohokam Community in the Tucson Basin*

Evidence for ritual consumption of food is often hard to discern from the archaeological record. This is especially true in areas where evidence for food consumption is scant. This paper will analyze evidence for ritual food consumption at the Marana Platform Mound Site in southern Arizona by comparing and contrasting food remains from the ceremonial center of the site with food remains from residential contexts. This will be accomplished by utilizing a combination of the zooarchaeological and paleoethnobotanical remains from the site in order to build a more complete picture of prehistoric food strategies.

**Bochart, Jessica (University of Montana)**

[103] *Interpreting the Past through Faunal Analysis at the Bridge River Site, British Columbia Canada*

Relying upon data from the 2003 and 2004 excavations at the Bridge River site, this paper will discuss changes in the faunal assemblage over time in correlation with environmental fluctuations and radiocarbon dates from over fifty housepits. Determining when inhabitants of the Bridge River site relied heavily on fishing activities versus hunting activities, can allow for a better understanding of past environmental conditions as well as when and why "packed" communities developed in the interior British Columbia region. The utility and manufacture of bone tools recovered from the site will also be discussed.

**Bolender, Douglas (Northwestern University)**

[93] *Land Tenure, Household Status and Agricultural Investment in Medieval Iceland*

Extensive soil coring and geochemical analysis were used to reconstruct the agricultural histories of a number of independent, tenant, and subtenant farms in the Langholt region of Northern Iceland. Techniques of medieval farming in Iceland and methods for studying relict agricultural landscapes are presented. The relationship between land tenure, household status, and strategies of agricultural intensification are explored.

**Boltt, Robert (University of Hawaii)**

[57] *An Archaic East Polynesian Adze Workshop on Rurutu, Austral Islands*

In 2003, an early East Polynesian site on the Austral island of Rurutu was excavated. Adze manufacturing was the primary activity, with material quarried from at least four different sources on the island. The site dates from the Archaic period (ca. A.D. 1000 - 1400), when a large amount of long-distance trade took place in the region. Neighboring archipelagoes such as the Southern Cooks and the Tuamotus, where quality basalt is scarce or nonexistent, would have needed convenient sources for this vital raw material. This paper discusses the possibility that the Australs were an export center for stone tools.

**Bond, Jeannette [116]** *see Wake, Thomas*

**Bond, Mark [52]** *see Cameron, Catherine*

**Bon-Harper, Sara (Monticello) and Derek Wheeler (Monticello)**

[3] *Site Characterization: The Definition of Archaeological Sites Using Survey and Excavation Data*

The Monticello Home Farm Quarter was encountered through STP survey as two spatially distinct sites on Thomas Jefferson's Virginia plantation. Consistent with plowzone formation processes and the nature of buildings from the period, no architectural remains were found during STP coverage. Subsequent excavation reveals a more complete understanding of the structures that were present there, and raises the issue of site definition. Although distinct according to survey

evidence, the sites functioned together with a central organization dictated by a slave-based economy. The question of site definition is examined according to the plantation-wide context and a site-specific analysis of social organization.

**Boone, James [100]** *see Worman, F. Scott; [76] see Hamilton, Marcus*

**Borejsza, Aleksander (University of California, Los Angeles)**

[149] *Systems of Agricultural Terracing at the Formative Site of La Laguna, Mexico*

It is common to date abandoned features of the agricultural landscape by association with surface scatters of sherds. The underlying assumptions are tested at La Laguna, a Terminal Formative settlement with remains of several superimposed systems of terracing of different morphologies: earthen berms, steps cut into the subsoil, stone risers, etc. Excavation of terrace fill proves that few of the features visible on the surface date to the Formative, while others are the product of farming in Postclassic, Colonial or modern periods. Alluvia deposited downstream from the site offer further insights into the multiple cycles of terrace construction and abandonment.

**Borgstede, Gregory (University of Pennsylvania) and Jason Yaeger (University of Wisconsin)**

[20] *Postcolonial Theory and Indigenous Movements in Maya Archaeology*

Archaeology has traditionally played an important role in constructing history, which in western contexts has been strongly tied to the nation-state. Postcolonial theory has made possible alternative histories that cross-cut ethnic and national boundaries and draw on different epistemological traditions. Here we examine postcolonial theory and the construction of archaeological histories in the Maya area, where indigenous movements have strongly influenced the implementation of postcolonial theory. We suggest that Maya archaeology must develop a robust theoretical base that acknowledges and incorporates key components of postcolonial theory arising out of the social context in which it is practiced.

**Borgstede, Gregory [20]** *see Yaeger, Jason*

**Borojevic, Ksenija (University of Alabama at Birmingham)**

[145] *Social Differentiation or Not? A Case Study from the Neolithic Site of Opovo in Serbia*

Social differentiation has become an increasingly popular topic in archaeology, including paleoethnobotany. Plant remains have often been used as evidence for social hierarchy. In the case of plant remains from the late Neolithic site of Opovo in Serbia, the differences in plant distribution observed among features, mostly pits, are consequences of various taphonomic processes and different plant processing activity areas rather than of social stratification. The people are not necessarily stratified along all the aspects of their lives, including the access to the vegetable food that they ate.

**Borrero, Luis A. (CONICET) [30]** *Discussant; [156] see Martin, Fabiana; [106] see Barrientos, Gustavo*

**Boszhardt, Robert (Mississippi Valley Archaeology Center, University of Wisconsin-La Crosse)**

[5] *The Liska Cache: Trihedral Adzes in the Upper Mississippi River Valley*

The Liska Cache consists of five large trihedral adzes and a silicified sandstone biface deposited in a pit feature, which also contained red ochre. These were placed on a high terrace overlooking the Mississippi River in southwestern Wisconsin. The adzes are manufactured from non-local basalt that were chipped, ground, and polished from wear. The age and specific function of these tools are unclear, although trihedral adzes in the western Great Lakes have been inferred to be associated with Late Paleoindian components. Pedogenesis above the feature may support this affiliation, offering implications for early Holocene wood working activities, including potential dug-out canoes.

**Bourdonneau, Eric [144]** *see Manguin, Pierre-Yves*

**Bourque, Bruce (Bates College), Beverly Johnson (Bates College) and Robert Steneck (University of Maine)**

[119] *Hunter-Gatherers Fishing Down the Food Web: A Gulf of Maine Example*

Maritime resources were important to prehistoric peoples of the Gulf of Maine from as far back as we have an archaeological record. However, the record shows marked changes in patterns of

maritime exploitation that seem too drastic to be explained by climatic change. Instead, we suspect that these maritime hunter-gatherers were "fishing down the food web" in a manner not yet demonstrated for any hunter-gatherer society. We are using stable isotopic analysis of archaeological faunal remains to test this hypothesis.

**Bousman, Britt (Texas State University) and Eric Oksanen (Texas State University)**

[151] *The Paleoindian-Archaic Transition in the Southern Plains*

In the Southern Plains and surrounding areas the transformations that mark the shift from Paleoindian to Archaic societies occurred over a 2500-year period beginning at the end of the Pleistocene (9500 Cal BC). Various coping strategies occurred in response to rapidly changing environments and resource availabilities. These changes were due to social experimentation among increasingly diverse Early Holocene populations and can be monitored through variations in subsistence, tool designs, and settlement/mobility patterns. By 7050 Cal BC the full set of Archaic behaviors was achieved but the transformation was not a simple linear progression throughout the region.

**Bove, Frederick (ISBER University of California, Santa Barbara)**

[81] *Mixe-Zoque to Pipil: Issues of Ethnicity*

One of the most contentious issues confronting contemporary archaeology is the interface between the archaeological identification of ethnicity and migration theory. A resurgence of interest in these problems provides researchers with a new theoretical and methodological foundation. These issues are explored by reviewing data arising from recent projects in both the Mixe-Zoque and Nahua/Pipil regions of coastal southeastern Mesoamerica against the background of the theoretical constructs and offer a current perspective on the complexities of this dynamic region.

**Bove, Frederick (ISBER, University of California, Santa Barbara) [148] Discussant**

**Bovy, Kristine (University of Washington)**

[130] *Long Distance Anthropogenic Impacts: Muttonbirding in New Zealand and Sooty Shearwaters in the Pacific Northwest (USA)*

Zooarchaeological studies have begun to demonstrate the local impacts, both positive and negative, that pre-industrial people had on their environments. However, many bird species, with their unique long-distance migrations, require impacts to be assessed on both local and global scales. I discuss this issue using zooarchaeological evidence for Sooty Shearwaters (*Puffinus griseus*) from New Zealand and Washington (USA). New Zealand provides one of the major breeding locations for Sooty Shearwaters. I show that the Maori practice of muttonbirding (the killing and preparation of fledgling shearwaters for storage) may have affected the number of summer migrants reaching the Pacific Northwest Coast.

**Bowen, Jonathan (Ohio Historical Society)**

[51] *The First Three Millennia of Ohio Prehistory*

Hafted bifaces of the Clovis, Barnes/Cumberland, Agate Basin, Hi-Lo, and Side Notched Thebes categories are the most abundant diagnostic tools from the first three millennia of documented human occupation in the Ohio area. Lithic-supply zones and the distributions of specimens suggest that macroband territories became smaller and more rigidly bounded from Clovis through Agate Basin times, but with continuity in land-use. The same data suggest that populations using Hi-Lo and Side Notched Thebes bifaces had smaller but less rigidly bounded macroband territories, and differing land-use practices.

**Bowen, Katie [3] see Bates, Brian**

**Bowser, Brenda (Washington State University) [45] Discussant**

**Boyd, Carolyn (Shumla School) and Phil Dering (Texas Forest Service)**

[67] *Tools of the Shaman or the Hunter? A Review of Material Culture in the Lower Pecos Region of Texas and Mexico*

We describe implements, icons, and medicinal plants recovered from Archaic and Late Prehistoric archaeological contexts in the Lower Pecos, Texas region. The artifacts resemble the material culture noted in ethnographic descriptions of shamanic practices throughout northern Mexico and the Southwestern United States. The Lower Pecos artifacts may have had multiple functions and meanings that helped the foragers relate to physical and spiritual beings that populated their landscape. Therefore, many of the tools, plants, and icons in this study likely served both economic and ritual purposes.

**Boytner, Ran (UCLA)**[110] *Archaeological Appropriations of the 21st Century: Opening Thoughts*

For the better part of the 20th century, archaeological investigations were conducted under a stable balance of political power between the East and the West. At the end of the Cold War, new centers of powers emerged, and appropriation of archaeological knowledge exploded with gusto, with a wide range of new political goals. This paper will explore some of these emerging power centers and the methods by which the archaeological past is appropriated for current political purposes. It will particularly emphasize such actions in overtly political environments, where the cost and risks of such activities are especially high.

**Boytner, Ran (University of California, Los Angeles) [46] Discussant****Bradbury, Andrew (Cultural Resource Analysts, Inc.) and Philip Carr (University of South Alabama)**[76] *Raw Material and Retouched Flakes: More Complicated than We Thought*

Based on controlled experiments in fracture mechanics, it has been suggested that flake mass can be accurately calculated by using several platform variables. An extension of this finding allows one to determine the amount of flake mass lost due to retouching, which has implications for investigating tool use/life. Further examinations of this relationship have produced varying results. Here, we expand on this research by conducting a series of flintknapping experiments using a variety of raw materials. We find that while there is a relationship between platform variables and flake mass, this relationship varies from material to material and equations have to be calculated for each raw material type.

**Bradford, James [142] see Dickson, D. Bruce****Bradley, Ronna (TVI Community College)**[75] *Subsistence in the Sinagua Cinder Fields: Agriculture against the Odds?*

Prehistoric sites in the Flagstaff area of northern Arizona yielded quantities of eight-row variety corn. From all indications the inhabitants had a significant dependence upon maize agriculture, despite high altitude conditions, limited availability of water, and marginal soil deposits. This paper examines the role of maize agriculture in the northern Sinagua area, and the advantages and obstacles that were part of every day subsistence in the cinder fields surrounding Sunset Crater.

**Brady, James (California State University, Los Angeles)**[112] *The Architectural Cave as an Early Form of Artificial Cave in the Maya Lowlands*

The exploration of the Preclassic surface site of Sabalam turned up two multi-chambered architectural features constructed within the fill that leveled the top of one of the hills on which the site is built. For reasons discussed, the constructions do not appear to have been tombs but are best understood as architectural caves. This paper reviews the literature to show that there is a long tradition of such features and that they were treated as caves in indigenous thinking. The Sabalam examples are important in that they appear to be the earliest in the Maya area.

**Brady, James [112] see Tucker, Tim; see Merino, Emilio****Brady, Liam (Monash University)**[79] *Recording the (Un)known: Indigenised Rock-art Recording Agendas in Torres Strait, Northeast Queensland*

Rock-art projects combining academics and Islander/Aboriginal communities in Western Torres Strait are emerging trends in rock-art research, linking indigenous/academic research questions/objectives. Interaction between rock-art researchers and indigenous Mualgal, Badulgal and Kaurareg communities reveal ranges of cultural contexts framing and directing research. Senior community members use rock-art as visual tools to understand dimensions of their cultural history. Sites are known through the socio-political climate of Native Title and the desire to define group boundaries. Attending to indigenous community agendas and recognising social contexts within which rock-art researcher's work reveal new insights into research methods and meanings for the sites we record.

**Braje, Todd [119] see Rick, Torben****Braje, Todd J. (University of Oregon), Douglas J. Kennett (University of Oregon) and Jon M. Erlandson (University of Oregon)**[19] *Trans-Holocene Subsistence Changes and Human Impacts on a Marine Ecosystem on Santa Rosa Island, California*

We have analyzed the faunal constituents of a large habitation site (SRI-147) on the south side of

Santa Rosa Island. The site is positioned two kilometers from the coast at the primary confluence of Jolla Vieja canyon, a location that was used frequently throughout much of the Middle and Late Holocene. This sequence provides an excellent opportunity to explore prehistoric subsistence decisions and the impacts of human predation on local inter-tidal and kelp bed habitats. We argue that changes in the faunal assemblage resulted, in part, from alterations in site use and intensified predation on inter-tidal and kelp bed resources through time.

**Brandon, R. Joe (Shovel Bums LLC) [16] *Discussant***

**Branigan, John (A.D. Marble & Company), John Lawrence (A.D. Marble & Company) and Robert Herbstritt**

[118] *Where Would You Live? A Seasonal Resource Driven Approach to Predictive Site Modeling*

This paper argues for a deductive approach to predictive modeling using anthropological models of hunter/gatherer and agriculturalist subsistence and settlement patterns. The underlying concept is that the search for Native American settlements should begin with a search for the location of the natural resources exploited from those settlements. This approach necessitates GIS mapping of the spatial distribution of plant and animal species economically important to Native Americans. The location of archaeological sites is predicted by "mapping" functional site types onto the seasonal resource distribution. A 34-square kilometer area along the Susquehanna River in Pennsylvania is used for a test application.

**Brannan, Nicole (Ft. Bragg Cultural Resources Program) and Jeff Irwin (Ft. Bragg Cultural Resources Program)**

[143] *Core Technology in the Sandhills*

The Sandhills of North Carolina is generally considered a stone-poor region utilized by mobile hunter-gatherer groups throughout prehistory. The nature of core technology and its relationship to raw material in the Sandhills is examined in this paper using data from the Fort Bragg military reservation. While non-local metavolcanic material is utilized heavily for bifacial technology, core production involves primarily quartz. The spatial distribution of cores is examined as an indicator of local raw material procurement from riverine terraces. The types of cores produced are heavily conditioned by raw material availability as predicted by Andrefsky.

**Braun, Ingram H. (Georg-August-Universitaet Goettingen, Seminar fuer Ur- und Fruehgeschichte)**

[89] *Requirements of Data Structures and Minimum Input Data Precision for Palaeodemographic Microsimulation*

Simulations are not models of reality but models of knowledge about reality in order to study its profound logic. Knowledge always addresses its subject with a specific resolution, and it is always in danger of going out of date. For archaeological simulations two conclusions can be drawn from those statements: 1. Programming should provide the possibility to follow the modification of knowledge. Recent techniques like object-orientation are suitable for keeping models flexible. 2. Archaeological knowledge usually has a low resolution. Even "wrong" (inaccurate) input data can lead to correct conclusions.

**Bray, Tamara (Wayne State University)**

[68] *The Archaeology of Mitmaquna and Multi-ethnic Frontiers: Theoretical and Material Implications*

The grand Inca resettlement program known as mitmaq was a fundamental component of imperial state policy. As the empire expanded, the Inca continuously removed, replaced, and relocated populations creating multi-ethnic frontier zones. How were the people in these borderlands transformed socially, ideologically, and technologically through their mutual encounters? What role did ethnic difference play in these zones, how did it operate and what did it look like? Focusing attention on the multi-ethnic frontiers of the empire offers insight into the ways in which ethnicity and identities were created, deployed, and transfigured in the context of an early imperial state.

**Brenner Coltrain, Joan (University of Utah)**

[1] *Basketmaker Stable Isotope Bone Chemistry and Fremont Origins*

Fremont origins and subsistence economies have long been contentious topics. Some have seen Fremont as outgrowth of the Desert Archaic, with maize acquired by diffusion from the south as a minor element of the diet. Others have held that Fremont were migrant Basketmakers for whom maize was an economic mainstay. An emerging consensus now presents a mixed view: maize

cultivators probably included both indigenous and migrant populations; reliance on maize varied, sometime substantially, depending on local conditions. Stable isotope and radiocarbon data derived from human skeletal remains provide important insight on these issues.

**Brewer, Margaret (LaPorta and Associates, L.L.C., Geological Consultants) and Philip LaPorta (LaPorta and Associates, L.L.C., Geological Consultants)**

[109] *Direct Procurement Quartz Vein Quarries of the Lower Hudson River Estuary*  
Quartz veins crop out along the eastern shore of the Hudson River, in the Appalachian Taconides. This material trends northward from Manhattan to Dutchess County, a distance of approximately 60 miles. Direct-procurement quarries were mapped where quartz veins intrude the Fordham Gneiss in tectonic joints and fold hinges. Sporadic mining of the quartz occurred throughout prehistory, however, acme of mine development occurred from Late Archaic to the Transitional (5000-3000 B.P.). The quarries are proximal to the Hudson River shell fisheries and the raw material is a predominant lithic component in archaeological sites along the New York coastal region.

**Brian, Scott V. (Brigham Young University)**

[73] *The Lithic Artifacts of Motul de San Jose: A Technological Analysis*  
Lithic artifacts from the Late Classic Maya site of Motul de San Jose, Guatemala are analyzed to investigate obsidian and chipped stone industries. The analysis is primarily technological and functional and was used to look at stone tool production spatially through out the site. The analysis of stone tools and debitage from Motul de San Jose indicates a dependence on local materials in the Late Classic Period.

**Bridges, Elizabeth (University of Michigan)**

[64] *In the Shadows of History: Diversity in the Archaeology of Medieval South India*  
As part of the larger South Asian context, South India has long been recognized for its history of social, economic and religious diversity. Within the Vijayanagara Empire of Medieval South India, minorities have been identified on the basis of linguistic and ethnic differences, variation in subsistence strategies, and by the practice of separate faiths. This paper will explore how such groups are represented in textual sources and by material culture of the period, and will examine the assumptions under which archaeologists and historians have sought to construct or reconfigure identities in the past.

**Bridgman, Kara A. [151] see Sassaman, Kenneth E.**

**Briggs, John [69] see Schollmeyer, Karen Gust**

**Britain, Lara (The College of Wooster), Alex Matlack (Kenyon College), Becky Laughner (Kenyon College) and Nikki Wayne (Kenyon College)**

[129] *From Temple to Trash Heap: Recycling Large Buildings at Las Canoas, Northwestern Honduras*  
The site of Las Canoas underwent a profound spatial re-organization and re-orientation near the end of the Classic period (A.D. 600-800). The orientation of several monumental structures in the site core was shifted from the north to the south, suggesting a corresponding shift away from affiliation with paramounts at the Classic period Naco Valley center of La Sierra and toward those at the Postclassic Cacaupala Valley center of El Coyote. As part of this reorientation, the main plaza was converted into an intensively exploited ceramic and ground stone production area, suggesting a profound re-imagination of this previously public space.

**Brncic, Terry (University of Oxford), Katherine Willis (University of Oxford) and D. Harris**

[43] *What is the Impact of Prehistoric Human Settlements on Congo Basin Rainforests?*  
The debate over whether prehistoric humans modified their rainforest habitat is critical for understanding not only current biodiversity patterns, but also how future anthropogenic disturbances may impact biodiversity. Recent fieldwork in the lowland Congo basin suggests that prehistoric human impact on lowland rainforest may have been more widespread than previously assumed. Our discovery of pottery fragments dated to between 1000 and 3200 years beneath herbaceous Marantaceae forest in the Ndoki River region suggests that this 'primary' forest may in fact be a stage of forest regeneration. We describe pre-human forest structure, and measure the forest changes associated with human presence. Finally we discuss successional patterns that have contributed to current forest structure, composition, and regional biodiversity.



**Broadbent, Noel D. (Smithsonian Institution)**

[100] *The Labyrinth and the Bear: Symbols in Conflict in Northern Coastal Sweden, AD 500 -1300*

This paper presents archaeological interpretations relating to seal hunting and the prehistory of the indigenous Saami of northern coastal Sweden. Excavations of hut complexes witness intensive ringed seal hunting during the period AD 500-1300. Saami ritual features, including a bear grave and ring-shaped enclosures, place-names and artifact distributions, reflect their relations to landscape features and waterways in this landscape. Radiocarbon dates of the sealing huts, suggest that these people had been displaced from the coastal zone by a Swedish population in the early 14th century. Stone labyrinths, interpreted as Christian symbols in this context, mark the Swedish appropriation of the coastal landscape and, in some cases, the overpowering of non-Christian features, including the sealers' huts and even older grave cairns. These symbolic manifestations mirror the religious and land-use conflicts that took place at that time and give new perspectives on the geography of the pre-reindeer herding Saami in northern Sweden.

**Brooks, Alison S. (George Washington University/Smithsonian) and Marta Camps (George Washington University/Smithsonian)**

[44] *The Mediterranean from 50-25kya: A View from the South*

As in sub-Saharan Africa, the concept of a Middle-Upper Paleolithic transition does not apply in most of the southern Mediterranean countries of North Africa. Late Pleistocene aridification dramatically reduced populations in most areas of the region. Except for the Dabban of Cyrenaica, most Aterian flake-based industries are succeeded after the LGM hiatus by microlithic ones. In many respects, Aterian industries of the region reflects behaviors more consistent with Upper Palaeolithic models than with Middle Paleolithic ones. Aterian points will be compared to Solutrean ones to support the advanced nature of Aterian adaptations.

**Brooks, Allyson [118] see Kramer, Stephenie**

**Broughton, Jack [27] see Byers, David**

**Browder, Jennifer (University of California, Riverside)**

[117] *Tepantitla as a House of Song at Teotihuacan*

The art and architecture of the Tepantitla compound suggest that it may have functioned as a House of Song. Known for the Aztec and ancient Maya, Houses of Song were places for teaching, ritual dancing, playing music, and reciting poetry. This paper compares the evidence from the Tepantitla compound with the identifying factors of other Houses of Song known within ancient Mesoamerica.

**Browman, David (Washington University, St. Louis) and Stephen Williams (Harvard University)**

[122] *The Antiquities Act: Harvard Connections*

The 1906 Antiquities Act was the culmination of non-governmental as well as governmental archaeological lobbying activities. The roots of the act can be derived from the early lobbying efforts of Frederic Putnam in recruiting colleagues from the Peabody Museum and other academic settings through his position with the American Association for the Advancement of Sciences in the late 1870s, in the name of preservation. The issue was of constant concern to Putnam; for a quarter of a century he utilized the resources of the Peabody Museum and the AAAS, and later the AMNH, to push for federal level legislation.

**Brown, David O. (Anthony & Brown Consulting)**

[156] *Fire and Ice: Volcanoes and People in the Ecuadorian Sierra*

The Ecuadorian sierra is ringed by active volcanoes. Previous studies have shown that frequent volcanic eruptions have had deleterious effects on cultures of the western slopes and lowlands. A preliminary reconnaissance in the sierra suggests that this has also been the case in areas closer to the volcanoes. Numerous archaeological sites show evidence of abandonment after eruptions by the most active volcanoes, Cotopaxi, Quilotoa, Pululahua, and Tungurahua. The most important eruption of the late prehistoric era, the eruption of Quilotoa around AD 1200, left a massive airfall whose effects may have still been felt into the historic era.

**Brown, Gary M. (National Park Service)**

[141] *Stylistic Variability in Puebloan Masonry at Aztec Ruins, New Mexico*

Aztec Ruins has outstanding examples of great house architecture that are described as Chacoan in general style. Construction is well dated through dendrochronology, providing a

chance to explore factors besides time causing intrasite variability in stone masonry techniques. Although long-term temporal changes that have been documented elsewhere by studies of Chacoan architecture are broadly supported, there are significant exceptions which suggest sociocultural and organizational differences within the groups constructing great houses. One model that may account for such variability includes a multicultural work force operating within the context of a diverse and dynamic relationship with Chaco Canyon.

**Brown, James (Northwestern University)**

[40] *Beyond Red Horn: Where Ethnology Meets History at Cahokia*

Current enthusiasm over projecting the Red Horn myth of the Ioway and Winnebago/Hochunk into archaeological contexts 700 years earlier have glossed over the social context that would make this cultural continuity credible. Little latitude is allowed for patterns established through archaeological means to speak for meanings that might be unrecorded by ethnographic texts. This paper critiques the rubber-stamp imposition of time-bound beliefs into the deep past. By way of alternative a theoretically guided analysis of archaeological contexts and patterns of imagery stands to create a necessary degree of independence from texts that allows the material past to speak for itself.

**Brown, James [76]** see Burger, Oskar

**Brown, Larae (California State University, Northridge) and L. Mark Raab (California State University, Northridge)**

[146] *Mexico and the United States: A Bi-national Program of Archaeological Research and Heritage Conservation*

Both Mexico and the United States face the increasing challenges of archaeological heritage conservation. These challenges present rich opportunities for trans-border education and professional training in archaeology. Yet such programs remain rare. This paper describes one such bi-national training program sponsored by the William and Flora Hewlett Foundation. The problems and benefits of creating a bi-national program in archaeological training and research are discussed.

**Brown, Larae [76]** see Raab, Ann

**Brown, M. Kathryn Brown (The University of Texas at Arlington) and James F. Garber (Texas State University)**

[108] *Preclassic Architecture, Ritual, and the Emergence of Cultural Complexity: A Diachronic Perspective from the Belize River Valley*

Architecture and material culture were used as mediums to transmit ideologically related messages pertaining to the social order of a community. The examination of public architecture and associated ritual deposits in a diachronic fashion provides insight into the transformation of ideological concepts which support developing social ranking. This paper examines the role of public architecture and ritual in the rise of complexity in the Belize Valley. Excavations at Blackman Eddy and Cahal Pech have uncovered developmental sequences of early public architecture and ritual deposits which reflect the adoption of new ideological concepts to legitimize the role of emerging elites.

**Bruemmer, Betsy (Smithsonian Institution), William Billeck (Smithsonian Institution) and Deborah Hull-Walski (Smithsonian Institution)**

[102] *Traditional Care and Native American Collections at the Smithsonian's National Museum of Natural History*

The passage of repatriation laws has led to a substantial increase in contacts with the Native American community and museum staff during consultations on collections. This increased contact, coupled with a greater sensitivity to object care by museums, has led to a greater willingness by museums to consider new methods for the care and management of collections that incorporate traditional care. Object curation at the Smithsonian's National Museum of Natural History now includes traditional care practices.

**Brunache, Peggy (University of Texas at Austin)**

[47] *Culinary Landscapes of Slavery in the French West Indies*

Historical archaeologists have discovered that foodways is a flexible analytical perspective to study identity formation of African descended populations and their creative processes of community-building under the constraints of slavery. Various lines of evidence including zooarchaeology, ethnographic and archival research are used in an attempt to understand the

role of women in the production of Guadeloupean culture and identity in the Francophone Caribbean, through the symbolism of food and cooking in which race and gender are negotiated as "otherness." Therefore, cooking becomes the conceptual site in which cultural agency and the creative formation of Creole identity is informed by women.

**Bruning, Susan (Southern Methodist University) [61] *Discussant***

**Bruning, Susan (Southern Methodist University) and Michael Adler (Southern Methodist University)**

[165] *Researching Group identity in the NAGPRA Era: Impacts of NAGPRA's Consultation and Cultural Affiliation Provisions on Archaeological Research in the American Southwest*

NAGPRA's consultation and cultural affiliation provisions have reshaped the way in which many archaeological research projects are conducted in the American Southwest. The law's influence exceeds its legal reach, extending well beyond research conducted on federal or tribal lands or research designed to address disposition rights under the statute. This paper considers NAGPRA's broader influence on contemporary archaeological research into questions of group identity and ethnicity, with a focus on the authors' ongoing research at a late prehistoric Pueblo site located on private land in Northern New Mexico.

**Bruno, Maria (Washington University in St. Louis) and William Whitehead (University of California, Berkeley)**

[145] *Plant Use, Public Architecture, and Early Village Life on the Taraco Peninsula, Bolivia*  
During the Late Chiripa Period (800-250 BC) villages were established across the Taraco Peninsula, Bolivia, each containing structures that are hypothesized to have served as public, ritual spaces. Although distinct, these structures contain similar attributes, such as sunken courts and engraved stonework. In this paper, we compare the plant remains from public structures at two sites: Chiripa and Achachi Coa Collu. Comparison of plant remains from these structures sheds light on the function of these spaces, as well as the role plant resources played in early polity formation in the Lake Titicaca Basin of Peru and Bolivia.

**Buck, Paul E. (Desert Research Institute) and Sachiko Sakai (University of California, Santa Barbara)**

[75] *The Mt. Trumbull Prehistory Project*

The Desert Research Institute, Nevada State College, and California State University Long Beach are investigating the Virgin Anasazi occupation of Mt. Trumbull, NW Arizona. Prior largely unsystematic inventories have revealed 400+ sites within about 240 mi<sup>2</sup>, including ~40 8-20 room C-or- L-shaped pueblos. Human occupation appears densest during PH times as indicated by surface ceramic collections. Many of these sites, located near 7,000 ft., are found on volcanically derived soils, which cover 2/3 of the study area. This paper describes work on several sites conducted in three seasons between 2001-2004.

**Bueno, Lucas (MAE, University of São Paulo) and Paulo DeBlasis (MAE, University of São Paulo)**

[30] *Technological Organization and Mobility in Central Brazil at Early Holocene*

Several open-air lithic sites from Central Brazilian Plateau, dated between 9 and 10,500 yBP, show considerable variability in terms of size, density, distribution and assemblage composition, some formed through reoccupations. Most artifacts are unifacial, but a few bifacial ones also appear. Different assemblages that respond to curated and expedient strategies characterize technological organization. These features point to a regular occupation throughout large territories and seem important to discuss the processes of settlement and adaptation of these first populations to this vast and open country.

**Buikstra, Jane (The University of New Mexico) [72] *Discussant***

**Buikstra, Jane (The University of New Mexico) and Kenneth Nystrom (The University of New Mexico)**

[99] *Ancestors and Social Memory: A South American Example of Dead Body Politics*

Inka battles over bodies were about power and control among the living, as warriors and mitimae moved across Andean landscapes. But Inka statecraft also possessed a much more subtle dimension whereby dead bodies, primarily mummified remains, were integrated with the living social landscape. This presentation will explore the role mummies played among people that the Inka collectively termed Chachapoya. In focusing upon the durable, mummified ancestors, we

contrast Robert Hertz's characterization of mummification as simply another form of secondary burial with a more nuanced argument in which ancestorhood both anchored the generative Andean cosmos and also empowered the Inka state.

**Bundy, John [138]** *see Smith, George*

**Burger, Oskar (Archaeology Program, Department of Anthropology, University of New Mexico), Marcus Hamilton (Archaeology Program, Department of Anthropology, University of New Mexico), Melanie Moses (Department of Biology, University of New Mexico) and James Brown (Department of Biology, University of New Mexico)**

[76] *Using Allometry to Investigate Energetic Constraints on Human Demography*

All organisms are constrained by fundamental energetic principles that can be described with allometric scaling relationships. These relationships also constrain human life histories and can be used to link fertility rates with energy consumption. We briefly summarize these constraints, outline the use of allometric scaling relationships to understand differences in energy budgets for foragers and agriculturalists, investigate their influence on fertility rates, and explore further evolutionary implications. Combining an energetic approach with recent research into human demography demonstrates striking consistency in fertility rates across subsistence regimes and suggests that changes in growth rates are largely a function of variation in mortality.

**Burgess, Laurie (Smithsonian Institution) and Laure Dussubieux (The Field Museum)**

[3] *Laser Ablation Analysis of 19th Century European and Asian Glass Trade Beads from North America*  
The use of nondestructive laser ablation-inductively coupled plasma-mass spectroscopy (LA-ICP-MS) to obtain element analysis of archaeological glass beads is becoming more widespread. The majority of nineteenth century glass beads recovered from archaeological sites in North America are of European origin, however, certain types of glass beads have been attributed to China in historical records. While similar studies have been conducted on European-derived beads, this LA-ICP-MS study examines compositional differences between the glass chemistry of beads attributed to China and of beads attributed to Venice and Bohemia.

**Burgett, Jessica (Pennsylvania State University)**

[94] *Petrography and the Production of El Paso Polychrome in the International Four Corners*

The site of Paquimé (Casas Grandes) in Northwest Chihuahua, Mexico has long been characterized as a center for regional exchange in the southern Southwest. Nevertheless, only a small amount of research has been done in Chihuahua on the production locations and distribution of trade goods. This project examines whether one 13th-14th century trade ware, El Paso Polychrome, was manufactured in West Texas and traded into Paquimé or if, instead, it was being produced locally in Chihuahua. If multiple production locations existed, there should be small differences in mineralogy and technology visible in thin-sections of sherds from Paquimé and West Texas.

**Burkhardt, Nicole [129]** *see Pino, Michelle*

**Burnett, Richard (Brigham Young University), Daniel Bair (Brigham Young University), Richard Terry (Brigham Young University) and Bruce Dahlin (Howard University)**

[50] *Soil Chemical Signatures of Ancient Feasting and Marketplace Activities at Chunchucmil, Yucatan, Mexico*

Marketplaces and feasting courtyards have been identified as activity areas among the ancient Maya. Soil phosphorus and trace element concentrations are used to identify activity areas. Elevated phosphate indicates areas of food preparation, consumption, and disposal. At Chunchucmil, surface soil samples were taken at suspected marketplace and ritual feasting areas. Phosphate and trace element levels in the soil were determined and compared. Spatial distribution of soil chemicals will be used in conjunction with architectural and artifactual evidence to identify these areas.

**Burr, George S. [163]** *see Jull, A. J. Timothy*

**Burt, Richard [142]** *see Dickson, D. Bruce*

**Bury, Rick (Rock Art Documentation Group), Dan Reeves (Rock Art Documentation Group) and David Robinson (Rock Art Documentation Group)**

[79] *Inclusive Processes and Integrated Roles: Resonance and Results in Vandenberg Rock-art Projects*

The cultural rock-art resources of Vandenberg Air Force Base provide intersections for an

assemblage of local attentions. As nodes of focus, rock art sites are focal points for a variety of disparate interests, often from very different perspectives; however, these pre-conditions present potentialities for co-operation in the integration of similarly resonant goals. The concerns of the Chumash Elders' Council and Vandenberg archaeologists combined motivations towards the respect and care for rock art sites in their settings. This paper underscores the processes arranging various voices into a composition of conservation, research, management, and indigenous practice.

**Bush, Mark B. [7]** *see De Oliveira, Paulo E.*

**Butler, Michelle (University of Colorado)**

[32] *A Tale of Two Cemeteries: Costa Rica Construction of Space*

The transition to the Arenal phase (500 BC - AD600) includes a change in the placement of cemeteries from within or near domestic spaces to locations further away and often higher in elevation than the village itself. Sitio Poma is an Arenal Phase cemetery in which the concept of space is highly qualified by the apparent social construction of a boundary to a cemetery in an otherwise unbounded locality. The concept of space is further explored as a possible explanation for the change in construction materials during the transition to the Silencio Phase (AD 600-1300) as exemplified by Sitio Castrillo.

**Butler, Virginia (Portland State University) [80]** *Discussant*

**Butler, Virginia (Portland State University) and Sarah Campbell (Western Washington University)**

[26] *Resource Abundance vs Resource Depression: Examining Human-Prey Interaction on the Southern Northwest Coast*

High population densities, specialized technologies, delayed consumption and semi-sedentism are hallmarks of Northwest Coast cultures, yet the possibility that human harvesting depressed resources has been generally ignored. Some scholars express the view that key resources, like salmonids, were difficult for humans to 'overuse.' We examine faunal records from 42 components at 19 archaeological sites in the southern Northwest Coast (200,000+ vertebrate specimens and 130 kg of invertebrate remains) and find no evidence of resource depression in salmon, mussels, or terrestrial mammals. Methodological and substantive factors that may account for lack evidence for resource depression are reviewed.

**Buvit, Ian (Washington State University), Karisa Terry (Washington State University) and Mikhail Konstantinov (Chita State Pedagogical University)**

[28] *Environmental and Archaeological Assessment of Middle Upper Paleolithic Sites in the Transbaikalian Region, Russia*

The middle Upper Paleolithic period (ca. 26,000-19,000 B.P.) in Siberia represents the transition from early Upper Paleolithic assemblages with prismatic blades to late Upper Paleolithic assemblages with microblades. Several key middle Upper Paleolithic sites in the Transbaikalian area of Russia are presented. Studies focus on the sites' geomorphic contexts, depositional histories, natural formation processes, chronologies, and cultural complexes. Preliminary findings suggest that toolkit variation and site selection during the middle Upper Paleolithic reflect changes in local environments.

**Byerly, Ryan M. (Southern Methodist University)**

[2] *A Reanalysis of the Bonfire Shelter (41VV218) Bonebed 2 Bison Skeletal Assemblage: Evaluating Site-Use Hypotheses*

Bonfire Shelter Bonebed 2 has long been recognized as the earliest bison jump site in North America. Dibble and Lorrain's (1968) analysis concluded that the bison bone deposit, representing an estimated 120 individuals, was the result of three separate bison jump kills by Paleoindian hunters. Binford (1978) argued that skeletal element frequencies favored high utility elements, suggesting a secondary processing area rather than a primary kill locus. This analysis finds that Bonebed 2 is, indeed, likely a single secondary processing area where the high fat utility elements of 24-27 bison were transported and butchered.

**Byers, David (University of Utah), Craig Smith (TRC Mariah) and Jack Broughton (University of Utah)**

[27] *Holocene Artiodactyl Population Histories and Large Game Hunting in the Wyoming Basin*  
Regional paleoenvironmental reconstructions and data on artiodactyl response to climate change

suggest that large game densities would have expanded during the late Holocene in the Wyoming Basin. Within this context, we use the prey model of foraging theory to predict a late Holocene increase in the hunting of artiodactyls, relative to lagomorphs and rodents. This prediction is then tested against 144 dated components documenting human subsistence in the Wyoming Basin. Close fits are found between the deductively derived prediction and the empirical records: significant increases in artiodactyl hunting occurred during the late Holocene.

**Byers, David (University of Utah) and Andrew Ugan (University of Utah)**

[51] *Clovis Math: Elephant Return Rates and the Implications for Paleoindian Mammoth Hunting*

Several recent arguments concerning Clovis subsistence appeal to optimal foraging theory to support the contention that Paleoindians were megafauna specialists. Using the simple Prey Choice Model and anatomical data from *Loxodonta africana*, we estimate the caloric yield from a mammoth and identify the range of handling times and encounter rates within which mammoth specialization might occur. Our results cast doubt on the model of Early Paleoindians as mammoth or megafauna specialists, suggest hunters should have taken a range of small and medium size animals as well, and agree with recently published reviews of the late Pleistocene faunal record.

**Cabana, Graciela (Arizona State University) and Keith L. Hunley (University of New Mexico)**

[7] *The Process behind the Pattern: A Molecular View of the Peopling of South America*

To address debates about the peopling of South America, molecular anthropologists have focused on the possible genetic relationships among South American populations, with the goal of interpreting the process of settlement of the continent. Unfortunately, few analytical methods exist that effectively use genetic data to explore the process behind the patterns. Here we employ a computer simulation approach to test different settlement process models with the available genetic data (mitochondrial and Y chromosome DNA). The simulations take into account both the demography of small-scale populations and the effects of long-term biological processes on these populations.

**Cable, Charlotte (Michigan State University), Mark Schurr (University of Notre Dame) and Meredith Chesson (University of Notre Dame)**

[93] *Things are Seldom what They Seem: Bone Collagen Preservation in Bronze Age Jordan*

Stable isotope analysis has become commonplace in bioarchaeological research. While North American and European archaeology have long included stable isotope analysis of human remains, this has not been the case in the Middle East, particularly in the desertic environment of the Southern Levant. Elemental analysis of faunal and human remains from two Early Bronze Age sites near the Dead Sea suggests that 1.) gross osteological preservation holds little direct correlation with collagen preservation, and 2.) archaeologists should pursue alternate methods in conjunction with stable isotope analysis of bone collagen to offset differential preservation in semi-arid environments.

**Cabo, Luis [146] see Dirkmaat, Dennis**

**Cachora, Lorey (Quechan Tribal Member and Anza-Borrego Institute)**

[35] *Circles of Reality and the Spiritual World*

American Indians know circular features are part of their cultures -- that given by a higher power. Tribal nations consider circles part of a sacred network, along with their environment and ecological associations -- a network that is the source of life. Circles are too significant to discuss only physical attributes. Treated properly, circles can bring sacredness and add to understanding the world's soul. Perhaps one day all people will recognize that physical reality and the spiritual world are one, as nature intended, and relearn and return to the guiding principles that will rescue the remainder of our shared Earth.

**Caloss, Dario [137] see Hyder, William**

**Calpestri, Suzanne (University of California, Berkeley) [61] Discussant**

**Cameron, Catherine (University of Colorado) and Mark Bond (Montgomery Archaeological Consultants)**

[52] *The Bluff/Comb Wash Project: A Decade of Research in the Northern San Juan Region*

From 1995 to 1998, the University of Colorado's excavations at the Bluff Great House explored the relationship of this site to Chaco Canyon. Abundant evidence of continued occupation and

active use of Bluff into the post-Chaco era (A.D. 1150-1300) sparked new research beginning in 2002 that was expanded to include an apparent post-Chaco community in Comb Wash with some settlement and landscape features that tie it to the Chaco past. This poster highlights major research themes for the Bluff/Comb project that are explored in detail by other posters in this session.

**Cameron, Catherine [154]** *see Powers, Robert*

**Campbell, Sarah [26]** *see Butler, Virginia*

**Camps, Marta (Smithsonian Institution/George Washington University)**

[44] *The Mid-Upper Paleolithic Transition as Seen in the Western Mediterranean*

Iberia is a key zone for the Mid-Upper Paleolithic Transition, as a final Neanderthal refugium in the South and an area of interaction between Neanderthal and Modern Humans in the North. This paper examines the phenomenon of the Transition in the Iberian Levant, which can be divided in two regions, according to the data obtained by archaeologists until present. Several issues, usually forgotten, are considered here in order to understand the present knowledge of how that event took place in that area: geographical research biases, early 20th century excavation works, and influence from French and British theoretical and methodological trends.

**Camps, Marta [44]** *see Brooks, Alison S.*

**Canaday, Tim (Bureau of Land Management) and Todd Swain (National Park Service)**

[138] *Operation Indian Rocks: Interagency ARPA Investigations in the Deserts of Nevada and California*

On December 15, 2001, two individuals drove into Death Valley National Park. There, they found and collected numerous prehistoric artifacts. A National Park Ranger observed their activities and subsequently stopped them. When questioned, one suspect said they were collecting "Indian rocks." Both admitted having extensive collections at home. Thus began Operation Indian Rocks, a task force consisting of archaeologists, and investigators from the BLM, NPS, USFWS, USAF, BICE, and USDOJ. Over 11,100 artifacts have been seized thus far and over \$570,000 in damage has been documented at 22 archaeological sites. Eight suspects pled guilty and others are currently under investigation.

**Canell, Kevin [36]** *see Reid, Kenneth; see Sappington, Robert*

**Cannon, Amanda [19]** *see Vellanoweth, René*

**Cannon, Aubrey [60]** *see Yang, Dongya*

**Cannon, Kenneth P. (National Park Service)**

[2] *They Went as High as They Choose: Recent Studies of High Altitude Bison from the Western United States*

Records of high altitude bison remains have periodically appeared in the scientific literature. However, these reports typically do not go beyond the descriptive. In this paper I present information on the analysis of two bison skulls recovered from alpine environments in Idaho and Utah. The research was supported by the National Forest Service. Research on the specimens involved stable isotope analysis, pollen and phytolith analysis, and metric analysis. The results of these studies provide the initiation of a larger study to understand the biogeography of bison in the intermountain west within the context of long term climate change.

**Cannon, Kenneth P. [36]** *see Cannon, Molly Boeka*

**Cannon, Mike (California State University, Long Beach)**

[130] *NISP, Bone Fragmentation, and the Measurement of Taxonomic Relative Abundance*

Zooarchaeologists have long recognized that NISP values are highly dependent on the degree to which bone specimens have been fragmented, but rarely are attempts made to control for the effects of fragmentation on NISP. This paper presents both a formal model of the relationship between NISP and fragmentation rate and experimental data on the shape of such relationships. This model and these data point to methods that can be used to determine whether variability in NISP-based indices of taxonomic relative abundance is truly telling us about variability in past human subsistence, rather than simply about variability in fragmentation rates.

**Cannon, Molly Boeka (National Park Service and University of Nebraska-Lincoln, Dept of Anthropology and Geography) and Kenneth P. Cannon (National Park Service and University of Nebraska-Lincoln, Dept of Anthropology and Geography)**

[36] *New Interpretations at the Challis Bison Kill Site (10CR196)*

A reanalysis of the Challis Bison Kill site provides interesting results for the interpretation of prehistoric behavior at the site as well as environmental conditions. Several lines of evidence point to an early spring event including the presence of blow-fly pupae and the presence of bison fetal bone in the faunal assemblage. Recent radiocarbon analysis provides evidence of a much earlier occupation than previously interpreted in the literature. Geochemical analysis provides information on the migration patterns of the prehistoric people who gathered at the Challis Bison Kill site, suggesting an aggregation area from a diverse geographic area.

**Cannon, William J. [137]** *see Ricks, Mary F.*

**Caraher, William [100]** *see Nakassis, Dimitri*

**Carballal, Margarita (Instituto Nacional de Anthropologia e Historia) and Maria Antonieta Moguel (Instituto Nacional de Anthropologia e Historia)**

[132] *Salvage and Rescue Archaeology in Mexico*

This paper will present the enormous institutional and scientific importance in Mexico of the archaeology undertaken in the modality of salvage and recovery. Also presented is the methodology developed for these interventions whose characteristics is imminent alteration and the urgency in which these must be done, with the results of more than 25 years of conduct on the part of la Subdirección de Salvamento Arqueológico del INAH. The planning within the institutional realm of INAH for this archaeology is in contrast to the contract archaeology practiced within the United States.

**Carballido, Mariana [156]** *see Scheinsohn, Vivian*

**Carballo, David (University of California, Los Angeles)**

[149] *La Laguna, Tlaxcala, and the Proto-urban Central Mexican Landscape of the Terminal Formative*

The dramatic reorganization of central Mexican societies due to the urbanism, state formation and state expansion of the Terminal Formative and Early Classic periods affords archaeologists an opportunity to examine social change relating to these processes at multiple levels of analysis. Recent investigations at La Laguna, a mid-sized regional center in northern Tlaxcala, demonstrate the connectivity that the inhabitants of the site had to other regions of Mesoamerica, owing in part to its position along a natural trade corridor linking the Basin of Mexico and the Gulf Coast, and the potential for understanding domestic variability during this transformative period.

**Carballo, Jennifer (Getty Conservation Institute), Françoise Descamps (Getty Conservation Institute) and Carolina Castellanos**

[50] *Joya de Cerén Site Management Plan: A Tool for Coordinating the Various Activities Undertaken at an Archaeological Site*

From 1999 to 2001, Concultura, with the collaboration of the Getty Conservation Institute, undertook the preparation of a management plan for the world archaeological site of Joya de Cerén, El Salvador. The plan addresses four fundamental programs--investigation, conservation, landscape, and social development--to support the preservation and conservation of this unique earthen site and its values. These programs are closely integrated with and provide parameters for: Fundamental archaeological and conservation research, site interpretation and presentation, dissemination of research results to the general public, and sustainable development for the benefit of inhabitants at both local and regional levels.

**Carballo, Jennifer [149]** *see Lesure, Richard*

**Card, Jeb (Tulane University)**

[91] *Cultural Innovation during the Invasion and Conquest of Mesoamerica: Hybrid Ceramic Tablewares from Ciudad Vieja, El Salvador*

At Ciudad Vieja, the first Spanish-controlled settlement in El Salvador, extensive research shows that the primary ceramic serving ware was a locally produced hybrid plate, substantially influenced by European majolica tablewares in form but not technology. Detailed analysis of vessel morphology and painted decoration reveals ties to local Pipil/Mesoamerican aesthetics as



well as unexpected attention to variation in European majolica wares. The short occupation of this first generation conquest-period site (1528 - 1545) and the widespread use of hybrid plates across the settlement (including in possible Mesoamerican households) call into question assumptions about the larger "colono"-ware phenomenon.

**Carlson, Eric [8]** *see Chesson, Meredith*

**Carlson, Keith (University of California, Santa Barbara) and Nathan Craig (University of California, Santa Barbara)**

[128] *Late Archaic Mound Sites in the Fortaleza Valley, Peru: An Analysis of Site Distribution and Continuing archaeological research in the Norte Chico region of coastal Peru has recorded 23 major Late Preceramic (2500 - 1800 BC) mound complexes. Little is known, however, about the intended meaning or function of these mounds in relation to processes of emerging socio-political complexity. Using GIS for exploratory data analysis, this relationship is addressed through examination of mound complex distributions in the Fortaleza Valley in terms of visibility, locational patterning, and cost surface modeling. Preliminary results indicate that valley wide site distributions are structured in relation to distance and physical setting though not strongly patterned in relation to visibility.*

**Carnes-McNaughton, Linda F. (Fort Bragg Cultural Resources Program) and Archie Smith (Town Creek Indian Mound SHS)**

[10] *Teaching Town Creek's Intriguing Past*

Town Creek Indian Mound is North Carolina's oldest state site and one of the best reconstructions of early civilization. Also a National Historic Landmark, the site contains a museum, an outdoor learning arena, a reconstructed stockade surrounding replicas of three prehistoric buildings, a plaza, and an earthen mound. Since 1995 and the publication of Coe's book, *Town Creek Indian Mound: A Native American Legacy*, new exhibits, programs, videos and texts have been produced by Staff in consultation with archaeologists, educators, Native Americans and craft specialists. This presentation examines the successes and modifications of the evolving interpretation of Town Creek's past.

**Carpenter, John [23]** *see Morales, Jorge*

**Carr, Kurt (Bureau for Historic Preservation) and J. M. Adovasio (Mercyhurst College)**

[151] *Shades of Gray: The Paleoindian/Early Archaic "Transition" in the Northeast*

While many earlier and not a few contemporary treatments of the Paleoindian/Early Archaic Transition in the Northeast often stress clear-cut macro or quantum changes in climate with resultant dramatic shifts in techno-adaptive strategies, the actual situation is far more opaque. Using data from several key sites in the Northeast, a different view of this moment in time is offered. In this perspective, the "transition" is seen as a series of micro-adjustments in which socio-technic and subsistence packages are gradationally and almost imperceptibly altered with some elements like the fluting of projectile points deleted and others added. Overall, however, there is no profound "signature" to the Paleoindian/Early Archaic Transition in this region.

**Carr, Kurt W. [109]** *see McLearen, Douglas*

**Carr, Philip [76]** *see Bradbury, Andrew*

**Carroll, Jon (Michigan State University)**

[40] *Complexity Theory and Late Woodland Social Dynamics in the Great Lakes Region*

Complexity theory has experienced increased cross-disciplinary recognition because of its ability to help researchers explain emergent properties in both the social and physical domains. For anthropologists, complexity theory provides a theoretical framework by which self-organizing communities may be compared, and cultural adaptations may be identified and characterized in a non-reductive manner. This paper discusses the utility of a complex systems approach to examining Late Woodland social dynamics in the prehistoric Great Lakes region of the Midwestern United States.

**Carroll, Mary (National Park Service) [37]** *Discussant*

**Carter, Brian [27]** *see Hurst, Stance*

**Carter, Elizabeth (University of California, Los Angeles) [61]** *Discussant*

**Carter, Thomas [63]** *see* Dixon, W. Randall

**Carter-Young, Heather [22]** *see* Memory, Melissa

**Carvajal, Diana (University of Calgary)**

[123] *Mollusks as Food in a Prolific Coastal Environment: Evidence for Highly Selective Foraging from Cerro Juan Díaz*

Innovative excavation techniques were employed at Cerro Juan Díaz where the residents of this large coastal village exploited mollusks as one of several animal food resources. Defined minimal stratigraphic units that were distributed vertically in a depositional pattern that alternates band layers and lenses allow distinguishing between zones of fast and slow accumulation. We used the taxonomy, frequency, and size of individual specimens of the shell taxa to infer human diet breadth and habitat exploitation. We infer that the community concentrated on a few taxa that could be obtained within few kilometers seaward of the site.

**Casana, Jesse (University of Arkansas)**

[133] *Settlement Dynamics and Environmental Degradation in the Northern Levant (3000 BC - AD 700)*

Recent archaeological survey in the Amuq Valley of southern Turkey documents a major transformation in the organization of regional settlement during the late first millennium BC, most notably characterized by the establishment of countless small villages throughout upland areas. Coordinated archaeological surveys and geomorphological investigations undertaken within several drainage basins allow the dispersal of upland settlement to be spatially and temporally linked with past episodes of extreme soil erosion. These data are integrated within a GIS-based landscape sensitivity model, enabling an exploration of the complex interrelationships among settlement, agricultural practices, and climate variability in driving land degradation over time.

**Cash, Phillip [137]** *see* Taylor, Michael W.

**Cassella, Stefan (US Dept of Justice)**

[138] *Using the Forfeiture Laws to Protect Archaeological Resources*

Just as the asset forfeiture laws have become part of the arsenal of weapons used to fight all manner of crimes from drug trafficking to terrorism to white collar fraud, they have become an increasingly important part of the effort to protect and recover cultural and natural resources. One little known and underused forfeiture provision relating to the preservation of cultural resources is the section of the Archaeological Resources Protection Act (ARPA) that allows the Government to recover archaeological resources and confiscate the tools used to desecrate historic sites. The purpose of this article is to highlight the provisions of the ARPA forfeiture statute, and to explain how it can be used to protect our cultural heritage from looters and thieves.

**Cassidy, Jim D. (University of California, Santa Barbara)**

[21] *Subsistence Change during the Final Neolithic in the Russian Far East as revealed by Fatty Acid Residue Analysis*

Global climatic instability 3,700 years ago correlates with the expansion of northeast Asian core-periphery interaction into the frontier area of the Russian Far East. These processes led to the expansion of food production in the form of millet and barley cultivation. In an attempt to gain a more direct understanding of subsistence practices and potential food production represented in deposits dating to this time period a total of 18 Neolithic and 41 Margarita Culture ceramic sherds were subjected to fatty acid residue analysis. This analysis revealed significant data pertaining to subsistence practices, as well as to possible patterns of seasonality.

**Cassidy, Jim [19]** *see* Raab, L. Mark; [5] *see* Rush, Laurie

**Casson, Aksel (University of Washington)**

[93] *Luminescence Dating of Neolithic Period Sites in the Jordan Valley*

Thermoluminescence (TL) and Optically Stimulated Luminescence (OSL) dating techniques were employed to determine periods of site occupation and architectural construction at several sites in the Jordan Valley. In association with other dating techniques, luminescence provides a useful means with which to better understand site formation and occupational histories for a multitude of differing archaeological contexts.

**Castellanos, Carolina [50]** *see* Carballo, Jennifer

**Castellon, William [49]** *see* Fox, Jake

**Castillo, Teresa (Instituto Nacional de Anthropologia e Historia)****[132] *Archaeological Curatorship and Material Analysis in INAH***

This paper will present the general problems of attention for the archaeological materials generated by the great amount of archaeological projects undertaken in diverse regions of the country during the last one hundred years. It will also touch on the procedure of analysis and curatorship of materials and objects till they arrive to their final destination: a museum exposition, safeguard in collections of INAH's storage facilities, or the controlled interment in areas approved by INAH. This paper will describe the procedure required for the exportation of samples, and the possibilities of interaction and exchange among the diverse laboratories of specialized analysis in Mexico and the United States.

**Castro, Mark (Hamilton College)****[3] *Historic Design Motifs on the Northwest Coast***

This poster presents an analysis of a collection of 19th Century artifacts from the northern Northwest Coast, presently housed at Hamilton College in central New York. The assemblage is dominated by basketry and other woven objects but also contains items of wood, shell, and bone. Emphasis in this study is placed on the analysis of design motifs and an attempt to relate these motifs to the prehistoric period. Study is also conducted into the relationship between individual artist variation and style and the formalized rules of design in the Pacific Northeast.

**Castro-Reino, Sergio F. (Desert Archaeology, Inc.) and James R. Allison (Brigham Young University)****[23] *Petrographic Analysis of Sherd Samples from the Hot Spring Lake and Airport Sites, Salt Lake City, Utah***

Prehistoric sherds from two sites near the Salt Lake City airport were analyzed petrographically and compared to a small reference set of sands from the Salt Lake Valley. No Fremont wares are tempered with sand from the Salt Lake area. Some Late Prehistoric wares are tempered with coarse, angular, alluvial sand temper of mineralic composition from metagranite sources 10-12 kilometers away. Volcanic-tempered Late Prehistoric sherds may originate in the Traverse Mountains--provenance cannot be established without further sampling, but the closest sources are at least 30 kilometers away. In all cases sources appear to be non-local to the studied sites.

**Castro-Reino, Sergio F. [23]** see Wilson, C. Dean; see Lyons, Patrick D.

**Causey, Douglas [119]** see Corbett, Debra

**Cetina Bastida, Aleida [72]** see Hurtado Cen, Araceli

**Chamberlin, Matthew (Arizona State University)****[48] *Interaction, Symbolic Conflict, and Social Identity in the Salinas Pueblo District***

In the Salinas Pueblo District of New Mexico, the formation of group identities prior to the rise of nucleated settlements of the Classic period (1300-1600 A.D.) remains poorly understood. I use neutron activation analysis to reconstruct networks of interaction among emerging groups in Salinas over the course of the Coalition period (1100-1300 A.D.). INAA data for both local and non-local ceramics, in concert with stylistic, settlement, and ritual landscape data, are used to argue that dispersed and then early aggregated groups pursued multiple strategies of symbolic conflict to build identities, including exchange and the emulation and appropriation of symbolic capital.

**Chamblee, John F. (University of Arizona)****[143] *Regional and Intra-Site Settlement Patterns in the Chickasawhatchee Swamp***

The Chickasawhatchee Swamp is a heterogeneous interior coastal plain landscape that alternates between hardwood-dominated wetlands and long-leaf pine uplands. Although a number of prehistoric mound centers were known here, none were well-documented, and little complementary survey data existed prior to this year. A nine month regional survey documented over 225 previously unrecorded sites, locating components dating from the Paleo-Indian through Historic periods. Four significant sites, including two mound centers, were mapped and subjected to limited testing. Preliminary analysis suggests that vegetation regimes and hydrology helped to shape regional and intra-site settlement.

**Chandler, Susan (Alpine Archaeological Consultants, Inc.)****[105] *Putting the Pieces Together: A Summary of What was Learned from the Kern River 2003 Project***

The overall goal of the Kern River 2003 Expansion Project's archaeological program was to more

fully understand the range of variability represented in the region's archaeological record. Exposition of variability is more of a process than an end, however, as this or any other project can only sample a miniscule portion of the region's archaeological record. This paper integrates the data from field, laboratory, and archival research to summarize the pan-cultural research objectives and to present a diachronic perspective of the range of cultural variation and models of cultural adaptation that account for the defined variability.

**Chang, Claudia (Sweet Briar College)**

[125] *The Evolution of Pastoral Economies during the Bronze and Iron Ages in Southeastern Kazakhstan*

Excavations at Iron Age settlements on the Talgar alluvial fan and at an upland Bronze Age site in the Asi Valley indicate that during both periods populations were dependent upon animal herding, although agro-pastoralism was more prevalent in the Iron Age. Architecture, faunal remains, dendrochronology and phytolith material have been used to reconstruct the prehistoric lifeways at these sites. Former models for the evolution of pastoralism are questioned.

**Chapa, Reymundo, Bentley, Nick and Alberto Basquez (DINAR)**

[87] *Transforming a Century of Archaeological Research at Tiwanaku into Three-Dimensional Space*

Understanding large-scale complex sites is hampered by the limited sizes of excavation units and subsequent time-consuming artifactual analysis. This research takes an alternate route for developing a broad understanding of monumental form by critically analyzing underpublished and underused original documentation from the last 100 years of research on the primary monuments of Tiwanaku. Transforming original field notes and drawings into a three-dimensional format compatible with the new data, this research presents the initial form and early transformation of monumentality at Tiwanaku.

**Chapin-Pyritz, Regina L. (Independent Consultant)**

[161] *Changes in Hopi Animal Utilization at Awatovi as a Result of Spanish Contact*

Archaeofaunal evidence from Awatovi, an abandoned seventeenth century Hopi village in northeastern Arizona, provides an unique opportunity to examine the effects of European contact on a traditional society. Procurement practices during the pre- and post-Spanish occupations of the site indicate the exploitation of a wide variety of wild and domestic animals. Differences in small versus large mammal hunting strategies and the nature of transport, processing, and disposal practices are explored in order to examine temporal trends in animal procurement patterns.

**Chapman, Richard (University of New Mexico)**

[131] *Rapid Territorial Expansion of Chacoan Communities*

This paper will explore the social and political implications of a rapid territorial expansion into uninhabited lands by the Chacoan system during its florescence in the 10th and 11th centuries. The utility of an elite based community model of Chaco socioeconomic organization to account for this territorial expansion in two different sub regions at its southern periphery is examined using archeological settlement data from the Fort Wingate and Cerritos de Jaspe locales north and east of present-day Zuni Pueblo.

**Charles, Douglas (Wesleyan University)**

[40] *Hopewell and Theories of Complex Gatherer-Hunters*

Complex gatherer-hunters, particularly those reliant in significant part on gardening or fishing, exist in a liminal theoretical world. They are not mobile gatherer-hunters, easily embedded in, for example, behavioral ecology models; nor are they sedentary farmers organized into chiefdoms, where concepts such as agency and meaning readily provide insight into materially rich societies. Phenomena such as Hopewell in the Eastern Woodlands of the North America have been probed by various theoretical frameworks emanating from gatherer-hunter band or agricultural chiefdom studies. This paper will examine what these perspectives have, and have not, addressed in the archaeology of Hopewellian complex gatherer-hunters.

**Chase, Arlen (University of Central Florida) and Diane Chase (University of Central Florida)**

[148] *The Future and the Past: Type-Variety-Mode Analysis and Postclassic Ceramics at Santa Rita Corozal, Belize, and Tayasal, Guatemala*

Type-Variety-Mode ceramic analysis came into use when little was known about the archaeology of the Maya area. This method of analysis is descriptive and permits the categorization of the

many pieces of pottery recovered in archaeological excavation. Postclassic ceramic analysis has rarely moved beyond T-V-M because of both a lack of whole vessels and a dearth of in situ contexts. Thus, it is difficult to address meaningful Postclassic interregional ceramic relationships. Data from Santa Rita Corozal, Belize, and Tayasal, Guatemala, are used to illustrate the limitations of T-V-M ceramic analysis and to suggest new avenues for future interpretation.

**Chase, Arlen (University of Central Florida) [41]** *Discussant*; [99] *see Chase, Diane*

**Chase, Bradley (University of Wisconsin)**

[14] *Bones at Bagasra: Seasonality and Subsistence in Harappan Gujarat*

The site of Bagasra, is a tiny (2 ha) Harappan site in Gujarat, an area often considered peripheral to the Indus Valley, or Harappan Civilization. Despite its size, however, the site seems to have functioned as a primary manufacturing center for shell bangles, one of the most economically and ideologically important prestige goods in the Indus world. This paper will present on current attempts to gain a more complete understanding of the nature of the animal economy at the site, specifically the way in which the site was integrated into the agro-pastoral landscape of 3rd millennium BC Gujarat. The primary data presented will be an integration of traditional methods for constructing mortality profiles in domestic animals with a study of cementum increments in teeth. Results will be interpreted in the context of ethnoarchaeological research previously undertaken.

**Chase, Diane (University of Central Florida) and Arlen Chase (University of Central Florida)**

[99] *Ghosts amid the Ruins: Analyzing Relationships between the Living and the Dead Among the Ancient Maya of Caracol, Belize*

The ancient Maya of Caracol, Belize integrated the dead and the living in their households. A specific building in each residential group usually was dedicated to mortuary ritual and housed the important dead. The social compact between the living and the dead could be altered through tomb re-entries. Archaeological signatures suggest that while some re-entries were accidental, others were purposeful and transformational, designed to re-define the relationships being the living and the dead. Mortuary data reflect not only ancient Maya worldview, but also changing socio-political relationships within the Maya area.

**Chase, Diane [148]** *see Chase, Arlen*

**Chatfield, Melissa (University of California, Santa Barbara)**

[66] *Post-Inca Pottery Production in Spanish Colonial Cuzco, Peru*

Craft production as related to political economy impacts how different modes of culture contact manifest themselves in the archaeological record. An interruption in the political economy of the Andes began in the period following Spanish conquest, when the inhabitants of the region lived without direct control by the Incas or the Spanish for 40 years. This transition out of standardized Imperial Inca pottery impacted both decorative style and technology, as is evident in the forms, motifs, and materials of the post-Inca potting tradition. Pottery analysis presented from excavations in the Cuzco region reevaluates the current usage of post-contact ceramic sequences.

**Chatman, Kelley (Howard University), Linsey Richbow (Howard University), Sharonda Oglesby (Howard University), Steven Williams (Howard University) and Eleanor King (Howard University)**

[3] *The Warrior's Project: Rediscovering Buffalo Soldiers on the Western Frontier*

In July 2004 Howard University and the National Park Service conducted joint investigations of a known Buffalo Soldier encampment in the Guadalupe Mountains of northwest Texas. The area was originally thought to be an intermittent campsite for the 9th and 10th Cavalries in the 1870's. Extensive survey and test excavations, however, revealed a larger, multi-component site. Most visible was a semi-permanent campsite occupied by the 10th Cavalry from 1878-81. Evidence was also found for several earlier historic and prehistoric components. This poster will report on the results of the field school, which united both Howard University and high school students.

**Chatters, James (Tetra Tech FW)**

[121] *A Macroevolutionary Perspective on the Archaeological Record of North America*

Americanist Archaeology has long been shackled by the culture area concept and the idea that change in any culture area must necessarily be explained as a local transformation. By discarding both of these notions and taking a macroevolutionary perspective, we are able to better understand the continent's record as the development, expansion, and extinction of competing

socioeconomic Bauplane that are historically bound and respond to changing conditions in their natural, social, and competitive environments. Recent expansions of the Numic and Mississippian Bauplane illustrate the macroevolutionary process, which is then extended to earlier large-scale socioeconomic developments in selected parts of the continent.

**Chatters, James [151]** *see Hackenberger, Steve*

**Chazan, Michael (University of Toronto)**

[92] *Time Scales for the Lower Paleolithic*

This paper discusses some of the problems inherent in constructing chronologies for the Lower Paleolithic with specific reference to debates surrounding the later part of the Lower Paleolithic in the Middle East. The Lower Paleolithic covers a period of over 1 million years. The sheer length of the period makes the Lower Paleolithic unique. Further issues revolve around the use of multiple dating methods with different levels of resolution and the use of typology as a temporal indicator for periods associated with early hominids.

**Cheetham, David (Arizona State University & NWA, Brigham Young University)**

[157] *Recent Investigations at Cantón Corralito: A Possible Olmec Enclave on the Pacific Coast of Chiapas, Mexico*

The nature of early Olmec (ca. 1150-1000 bc) influence beyond the Gulf Coast region remains the 'mother question' of Olmec studies. Investigations at the site of Cantón Corralito, Chiapas, provide a wealth new data that will help resolve this question for one distant region of Mesoamerica. Excavated materials include several thousand locally produced and imported Olmec style objects such as ceramic vessels and figurines. Burials containing Olmec-related preciosities were also unearthed. In this presentation I introduce Cantón Corralito, its material remains, and discuss its potential for answering long-debated questions regarding the initial spread of the Olmec style in Mesoamerica.

**Chesson, Meredith (University of Notre Dame) and Eric Carlson**

[8] *Making Places for Life and Death: Early Bronze Age Settlements and Cemeteries on the Southeastern Dead Sea Plain, Jordan*

The Early Bronze Age (c. 3600-2000 BCE) of the southern Levant involved wide-scale population aggregation into fortified settlements, accompanied by the intensification of agricultural production, use of community-wide storage, increasing social complexity at personal and polity levels, and the transformation of social and geographic landscapes. These changes have been documented on the southeastern Dead Sea Plain of Jordan, in the settlements of Bab edh-Dhra' and Numeira, and the associated cemeteries of Bab edh-Dhra', Naqa, Feifa, and Khanazir. Rooted in ideas about social memory and place, this paper discusses how EBA people continually recrafted themselves and their communities as they built, changed, and abandoned places.

**Chesson, Meredith [93]** *see Cable, Charlotte*

**Chiarelli, James (Earthwatch Institute) [90]** *Discussant*

**Chiarulli, Beverly (Indiana University of PA)**

[5] *The Use of Magnetic Susceptibility Analysis in the Identification of Stratified Floodplain Deposits in Pennsylvania*

Magnetic susceptibility analysis is an approach that can be used for the identification of cultural horizons in floodplain and other environments. Traditional approaches for the discovery of buried stratified sites have often relied on accidental discoveries during construction projects or on costly test excavation strategies. Magnetic susceptibility analysis is a tool, which could become the basis a low cost strategy for archaeological investigations of these environments. This paper describes the results of the analysis of magnetic susceptibility columns from sites in the Ohio and Allegheny drainages and suggests ways in which this technique can be used in site identification strategies.

**Chiarulli, Beverly [113]** *Discussant*

**Child, Mark (Yale University)**

[152] *The Archaeology of Religious Movements: The Evolution of the Sweatbath Cult in Ancient Maya Society*

The pantheon of deities in ancient Maya society differs from those of the Classical Old World in that their associated religious movements have yet to be isolated, which is obviously due to a lack

in historical texts, but primarily due to underdeveloped theory. The comparative-theoretical approach draws upon behavioral patterns from inter-disciplinary fields of religion to identify their formal organizational structures, their origin point, and their evolution through time and space. This paper will trace the religious movement of the ancient Maya sweatbath by analyzing architectural, iconographic, epigraphic, ethnohistoric and ethnographic data to a theoretical framework of comparative religion.

**Childs, S. Terry (National Park Service) [37] Discussant**

**Chinchilla, Oswaldo (Museo Popol Vuh, Universidad Francisco Marroquin)**

[54] *Games, Courts, and Players at Late Classic Cotzumalhuapa, Guatemala*

Studies of Cotzumalhuapa art have placed a strong emphasis on representations of ball players, perhaps to the point of overstating their importance among the subject represented in the sculptural corpus. Despite their apparent importance, no ball courts were clearly documented until recently. Moreover, new interpretations of the iconography of ancient Mesoamerican games suggest that some representations may depict other types of games besides the ball game as traditionally understood. This paper examines the archaeological and iconographic evidence for the ball game and other types of games at Cotzumalhuapa, offering suggestions on their social context ritual associations, and architectural settings.

**Chippindale, Christopher (Cambridge University Museum)**

[165] *NAGPRA in the '51st State': The Palmer Report and Human Remains in British Collections*

After many years of a stable legal framework and slowly evolving attitudes, Britain now has a very different suggestion as to what should happen to human remains in its collections. The Palmer Report echoes NAGPRA in its central thrust, with some very significant differences. Is it a re-statement of NAGPRA, for better or worse? Or is it decidedly different, benefitting from 15 years of NAGPRA in actual operation, and addressing the realities of British conditions?

**Chippindale, Christopher (University of Cambridge)**

[79] *Jabiluka: Rock-art Research on Contested Terrain in Aboriginal Northern Australia*

Jabiluka is an area of stone country in the 'Top End' of the Australian Northern Territory with important rock-art and under its rock-art an important uranium deposit. Its traditional owners have fought off the miners who have withdrawn, and back-filled their hole. In this contested terrain, what role does an academic archaeologist find himself in? Whose agenda now controls his work?

**Christensen, Alexander (JPAC-CIL)**

[69] *Matrilineal Clans and Population Structure of the Nineteenth-Century Hopi and their Fourteenth-Century Ancestors*

Surnames have been used as a proxy for genes to study the population structure of numerous European-derived historical populations. An 1883 census of the Hopi Mesas provides the distribution of matrilineal clan names, which can be used in the same manner. Bernardini's study of petroglyphs associated with fourteenth-century Arizona pueblos that appear to be renditions of clan names provides a putative distribution of clans within prehistoric communities. Analyses of these two distribution patterns reveal similarities in population structure. The implications of these population structures for the use of mitochondrial DNA to study Native American population history are discussed.

**Christensen, Jim (SWCA, Inc. Environmental Consultants)**

[142] *"Waste Management: What Makes a 20th Century Trash Deposit Eligible for Listing to the NRHP?"*

Determining the NRHP eligibility of twentieth century trash deposits can be difficult. Some such deposits have yielded information important to understanding specific historical trends. Others have only been generally linked to broad historical groups. We must establish sound foundations for evaluating this common site type, and we must establish the level of anthropological association required to address high order research questions. Several trash deposits provide examples of different sampling methodologies and analytical techniques that suggest a platform for discussion of improved ways to handle this increasingly common site type.

**Christie, Jessica (East Carolina University)**

[136] *Inka Royal Estates And Cosmological Models: Were Private Estates Really "Little Cuscos?"*

This paper will discuss possible political implications of a pattern in Inka architecture which consists of a plaza, kallanka(s), and a special foregrounded rock. I have identified this pattern at

several royal estates. By means of formal analysis, use of archaeological data, and ethnographic sources, the pattern can be related to the Awkaypata plaza and the usnu in Cusco. The foregrounded rocks may have fulfilled ritual and symbolic functions similar to those of the Cusco usnu and Inka rulers who employed the pattern at their private estates may have aspired to construct their own cosmological centers following the model of the capital.

**Christina, Rieth [124]** *see Horton, Beth*

**Christy, Deborah Lynn (Georgia State University)**

[143] *Diet Choice under the Oaks: An Experimental Approach to Analyzing the Contribution of Multiple Acorn Species to the Prehistoric Diet*

Acorns are recognized as a major wild food in many parts of the New World, but little research has examined the relative contribution various species of acorn have made to the prehistoric diet. An experiment was created to determine the comparative caloric payoff of various species of acorn, focusing primarily on the Southeastern region. Results show that acorns from white oaks process easily but store poorly, while acorns from red oaks are more costly to process but store better and are available in times of scarcity. Implications for optimal foraging and diet choice in the Southeast are discussed.

**Church, Michael [94]** *see Ramenofsky, Ann*

**Cinquino, Michael [38]** *see Hayward, Michele*

**Ciolek-Torrello, Richard (Statistical Research), Benjamin Vargas (Statistical Research), Frederick W. Lange (Statistical Research) and Anne Stoll (Statistical Research)**

[162] *Spanish Colonial Impacts: A View from a Gentile Native American Burial Ground in Southern California*

Recent excavations in the Ballona wetlands of the Los Angeles Basin have uncovered an extensive Native American burial ground, including hundreds of individuals from the Mission-period. These individuals are distinguished from a larger surrounding prehistoric mortuary population by the presence of thousands of glass beads and other Spanish Colonial trade items, as well as distinctive mortuary treatments. Several individuals also show the scars of introduced European diseases; others exhibit evidence of violent deaths. These archaeological remains, together with mission records and other historical documents, provide a rare perspective on European impacts to contemporary Native American communities outside the mission boundaries.

**Ciolek-Torrello, Richard [162]** *see Douglass, John*

**Ciszek, Martin (Sweden)**

[45] *Apprenticeship in Textile Crafts: The Transmission of Culture*

The transmission of a craft through apprenticeship involves not only tools and raw materials, but also an initiation into a system of language, ethics, taste and rules. This discourse reflects the age, the context and the society the craft is part of. As a textile researcher and professional craftsman, with experience in knowledge transfer on weaving and sewing, my contribution will be an attempt to analyze the ideas expressed through the craft by studying archaeological and historic textiles, using examples from Swedish hand weaving, 19th - 20th c. silk weaving, and Roman textiles from Egypt.

**Claassen, Cheryl (Appalachian State University)**

[24] *Women Miss Publication Opportunities*

Women don't submit papers to journals as often as their percentage in the profession would suggest. Furthermore, women are far more likely to volunteer papers to conferences, while men disproportionately are invited to present within organized symposia. These symposia feed the book publishing industry.

**Claassen, Cheryl (Appalachian State University) [86]** *Discussant*

**Clapperton, Rebecca (University of Idaho) and Amanda Haught (University of Idaho)**

[11] *Settling the West: An Examination of a Nineteenth Century Farmstead in Northern Idaho*

Over the past twenty years or so there has been a great deal of scholarship by historians on the settling of the American West. Unfortunately historical archaeology has only been a sporadic contributor on this topic. A recent excavation on a late nineteenth century farmstead in northern



Idaho represents a case study on early Euro-American settlement of the Palouse region of Idaho. Through the analysis of a large assemblage of artifacts archaeologists are discovering what life was like for the Swedish immigrant family living in rural Idaho as well as their links to the global economy.

**Clardy, Crystal [3]** see Bates, Brian

**Clark, Bonnie (University of Denver)**

[8] *Making a Place: Exploring Ideals and Identity through Archaeology*

Archaeologists have long thought about spaces, but we are relatively new to places. The difference between the two concepts is critical: spaces are abstract while places are lived and rich with meaning. Places combine the physical requirements for living with cultural expectations and social needs. They can also be important statements about identity. This paper uses historical archaeology to explore a small settlement on the edge of the Hispano homeland. Here residents chose to make as their home not merely a collection of structures, but a place, one with cultural meaning at a time of ethnic conflict.

**Clark, Geoffrey [44]** see Pinto, Ana

**Clark, Geoffrey A. (Arizona State University) and Julien Riel-Salvatore (Arizona State University)**

[44] *What's in a Name? The Compositional Integrity of the Aurignacian*

For the Aurignacian to have heuristic validity as an analytical unit, it must share a number of defining characteristics that co-occur systematically across time and space. To assess its compositional integrity, we examine 52 levels from 15 European Aurignacian sites, comparing them to one another on the basis of their (1) retouched tool components, (2) aspects of technology, and (3) bone technology, art and personal adornment. Classic French Aurignacian diagnostics are also reviewed and, along with the compositional analysis, allow for quantitative assessment of whether or not the Aurignacian can be considered to be a single, coherent archaeological 'entity'.

**Clark, Jeffery (Center for Desert Archaeology)**

[139] *Persistent Pithouse Places in the Northeast Hohokam "Periphery"*

Many of the major pithouse villages on the northeast margin of the "Hohokam World" were occupied for more than 500 years. Centuries before the transition to above-ground architecture, these settlements exhibit deep sedentism and a commitment to irrigation agriculture. Examples from the Tonto Basin, the San Pedro Valley, and the Safford Basin are used to evaluate the economic basis for settlement and the role of Hohokam migration and ideology in the development and persistence of these early villages.

**Clark, Jeffery [97]** see Hill, J. Brett

**Clark, Joelle (Northern Arizona University)**

[113] *Education as a Vehicle for Including Multiple Voices in Archaeology*

We live in a multicultural society where the need for education about cultural understanding is becoming more critical. Archaeology provides a context for learning that reaches beyond mere studies in ethnicity. Archaeology allows students to explore changing political, economic, and social developments over time. Developments in archaeology education have provided a forum for including multiple voices in this endeavor. Among these voices are Native American educators who are helping their students discover their own heritage and identities through archaeology. By participating in the development and implementation of archaeology curricula, these educators are transforming archaeology education through emic perspectives.

**Clark, Joelle [74]** see Gumerman IV, George

**Clark, John E. (Brigham Young University)**

[81] *80 Years of Preclassic/Formative Archaeology in Mesoamerica*

Preclassic Archaeology got its start with the Carnegie excavations in Uaxactun in 1926, and it has grown at a snail's pace ever since, despite the clear value of early sites for deciphering the development of later Mesoamerican civilizations. In this paper I review the checkered history of Preclassic studies and their advances. What questions and issues have motivated Formative studies in the past, and what are the current issues? A majority of the questions have concerned the Olmecs and their influence on other peoples. Gareth W. Lowe was a major contributor to Preclassic and Olmec studies for over 40 years. I pay particular attention to his contributions and place them in their historic context.

Clark, John E. [134] *see Barba, Luis*

**Clark, Tiffany (Arizona State University)**

[48] *What's Black and White, and Spread All Over? A Compositional Study of Chupadero Black-on-white Pottery*

This study examines Chupadero Black-on-white pottery production and distribution in Salinas and Sierra Blanca regions of central New Mexico during the early Pueblo IV period (AD 1200/1250-1450). Using data from the recent neutron activation analysis of almost 600 Chupadero sherds, the nature and extent of community specialization are evaluated and compared between the two regions. Compositional data are also relied upon in this study to assess the movement of Chupadero pottery at both the intra- and interregional levels. Results of such examination provide a basis with which to explore regional networks of social relations during the early Pueblo IV period.

Clark, Tiffany [161] *see Spielmann, Katherine*

**Clarke, Annie (The University of Sydney) and Ursula Frederick (The Australian National University)**

[114] *Seeing the Present and the Past: Rock Art as a Site of Cross-Cultural Exchange*

Drawing on archaeology, anthropology and art history, this paper proposes that rock art is both a site of contact and a context for mediating cross-cultural exchange. Using the contact rock art of Groote Eylandt, northern Australia we explore visual narratives of cross-cultural exchange between Indigenous peoples and other cultural groups. We argue that rock art records a process of Indigenous agency and response to interaction with 'outsiders'. Likewise, researchers perform their own acts of translation by recording and attempting to read rock art in terms of structure and meaning. Rock art provides insights into the way people in the past articulated their changing world and provides an opportunity to explore the ways in which we, as archaeologists, see the past in ours.

**Clarke, David (University of Montana)**

[103] *Bipolar Cores 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 interior Canadian Plateau. The 2003-2004 field seasons yielded artifacts from 60 pithouses and at least 16 external pit features. This paper looks at the bipolar cores from the lithic assemblage to determine whether there is any spatial patterning across the site and throughout its chronology. This research will provide new evidence on the socio-economic role of bipolar core technology at the site throughout its occupation.

Clarke, David [103] *see Foss, Jacob*

**Clayton, Sarah (Arizona State University)**

[117] *Diversity and Identity in Mortuary Practice at Teotihuacan*

The vast majority of the urban population of Teotihuacan lived in apartment compounds located throughout the city, but many questions remain regarding the nature of the social units that occupied these compounds. One axis of variation among compounds that deserves more attention is ritual practice, which may have been socially integrative as well as divisive. In this paper, I quantitatively compare aspects of mortuary behavior at different compounds in order to investigate social variation related to ritual practice. Results suggest that the social roles expressed at death largely crosscut residential affiliation, and reflected aspects of a widely shared ritual ideology.

**Cleland, James (EDAW, Inc.)**

[35] *The Confines of Space: Circular Surface Features in the Colorado Desert*

At least three distinctive types of circular rock features are found at surface sites in the Colorado Desert: rock rings, cleared circles, and tamped/cleared rings. A variety of functions have been attributed to such features, ranging from domestic activities to ritual activities. Some features are clearly associated with subsistence activities and habitation, such as those along former Lake Cahulla shorelines. Many others, however, are concentrated in locations with very poor subsistence prospects and are probably the result of ritual or symbolic activities. This paper will examine recent archaeological evidence to determine whether they are quantifiable indicators of feature function.

**Clementz, Mark [119] *see Corbett, Debra***

**Close, Angela (University of Washington)***[44] The Upper Palaeolithic Hiatus in Northwestern Africa*

In Africa west of Egypt and north of the Sahara, there are gaps in the Upper Palaeolithic. The early Upper Palaeolithic occurs in Libya - the Dabban - but is followed by a gap of perhaps twenty millennia. In the Maghreb, there was a hiatus of many millennia between the Middle Palaeolithic and the Late Palaeolithic Iberomaurusian, which was apparently a recolonisation from the east. These gaps may result from the isolation of northwestern Africa by the extreme aridity of most of the Last Glaciation. They also allowed southern Iberia to be a final refugium for the Neandertals.

**Cobb, Allan [112]** *see Merino, Emilio***Cobb, Charles (Binghamton University)***[38] Fringe Politics in the Mississippian World*

The static settlement system models which replaced the normative cultural-historical views of Mississippian chiefdoms in the American Southeast, are in turn being revised by more dynamic frameworks that incorporate elements from earlier perspectives with current ideas about agency, structure and identity. Both materialist (population movement, warfare) and ideological factors reproduced complex relationships between major centers and peripheral communities. The archaeological record from regions such as the Lower Ohio Valley appears to reflect an arc of instability and competition, where life in the margins involved a tension between loose adherence to broad cultural practices and a politics of difference.

**Cochran, Jennifer (The University of Texas at Arlington)***[108] The Role of Marine Shell Production during the Early and Middle Preclassic at the Site of Blackman Eddy, Belize*

Archaeological evidence suggests that marine shell was an important commodity in the Maya Lowlands during the Middle Preclassic period. Recent investigations within the Belize River Valley have revealed that marine shell production was widespread during this early time period and that marine shell may have served as a prestige item for emerging elites. Emerging elites set themselves apart by accumulating prestige items such as marine shell. This paper examines the role of marine shell production and its implications of rising complexity at the site of Blackman Eddy during the Early and Middle Preclassic time periods.

**Cochrane, Ethan (University of Hawaii), Julie Field (University of Cambridge, Leverhulme Centre) and Diana Greenlee (University of Washington)***[4] Variation in Isotopic Diet among Prehistoric Fijians*

Oceanic archaeologists often make assumptions about the relative importance of marine and terrestrial resources in prehistoric diets. One way to address these assumptions is through chemical analysis of archaeological human bones and potential dietary resources. Here, we present stable carbon and nitrogen isotope ratios for collagen from humans and associated fauna from the Yasawa Islands and the Sigatoka Valley of Viti Levu, Fiji. The samples, from burial and midden contexts, date from the colonization of Fiji (750 BC) to the eve of western contact (AD 1650). Our preliminary results indicate significant geographic and temporal variation in diet among prehistoric Fijians.

**Cohen, Andrew (Brandeis University)***[47] Barley and the state in Early Mesopotamia: A commodity chain analysis*

This presentation examines the social organization around bringing barley from field to table in mid- to late-third millennium BCE Mesopotamia. Barley was a staple and its preparation involved activities, agents, and implements which together constitute the "barley commodity chain." The organization of this chain maintained a few people at high standard of living and condemned many others to toil and debt. The Mesopotamian social organization around barley thus constituted a tool of hegemony. By examining the procurement of a staple as a necessary stage of food preparation, I seek to expand the dialogue about the political aspects of cooking.

**Cohen, Arthur [143]** *see Foster, Thomas***Cohen, David (University of California, Berkeley)***[114] Serfdom, Trade, and Poverty on the Kalahari's Fringe*

In southern Africa, the archaeological investigation of culture contact needs a critical review of the theory and methodology of the models introduced in the so-called 'Kalahari Debate.' Issues brought out in this debate necessarily questioned practices and assumptions of the past few

decades of anthropological research on foragers, on culture contact, on historical anthropologies and cultural identity. This paper will discuss research in southeastern Botswana designed to contribute empirically and methodologically to these issues through an engagement with archaeological materials resulting from contact and changing dialectics between foragers and migrant agropastoralists on the fringe of the Kalahari Desert.

**Cohen, Leslie (Museum of Indian Arts & Culture/Laboratory of Anthropology)**

[94] *LA 6538: Architectural and Ceramic Variability at a Mimbres Mogollon Pithouse Village in the Upper Forks of the Gila*

Although the Upper Forks of the Gila in southwestern New Mexico are considered part of the Mimbres Mogollon region, they are an archaeological terra incognita due to the paucity of systematic excavations. LA 6538, a primarily Georgetown phase pithouse village, was excavated in 1966, but the data were never analyzed. Initial research findings provide a new temporal perspective on the architectural sequence bridging the transition between the Early and Late Pithouse periods in the Mimbres region, while the red-slipped, basket-impressed and smudged ceramics indicate a variability not reported at Georgetown phase sites in the Mimbres Valley or the Upper Gila.

**Coil, James (University of California, Berkeley)**

[57] *"The Beauty that Was:" Archaeological Investigations of Ancient Hawaiian Agriculture and Environmental Change in Kahikinui, Maui*

I discuss my dissertation research involving pre-contact settlement patterns, agricultural adaptation and intensification, and Holocene environmental change in arid southeastern Maui, Hawaiian Islands. Using multiple lines of evidence, including wood charcoal identification, plant microfossil analysis, geoarchaeological trenching, native plant distributions, and ethnohistoric documents, I reconstruct patterns of vegetation change, land use, and cultural survival strategies in this economically marginal Polynesian landscape. I also briefly discuss my more recent work on pre-contact dryland field systems on Moloka'i and Hawai'i islands as comparative studies.

**Coke, James [112] see Rissolo, Dominique**

**Cole, Kelleigh (Brigham Young University) and Zachary Nelson (Penn State Univ)**

[147] *Looting in International Territory: Sagas of Blood, Stones, and Steal*

Archaeologists are not the only news source on ancient artifacts. There is still an ongoing trade in illicit materials, both in the United States and abroad. Looting is still quite popular in Third World countries with precious goodies destined for Developed countries museums and private coffers. How does the media treat such activities and how can archaeologists come to grips with this damaging trade?

**Cole, Kelleigh [152] see Mesick, Cassandra**

**Cole, Stephen (University of Memphis)**

[93] *Toolstone Acquisition: Simulation Experiments*

Hypotheses concerning the organization of subsistence activities are often tested with data on lithic raw material composition. One methodological problem with this practice is how to test the hypothesis that factors other than toolstone occurrence distribution affected toolstone acquisition? Elsewhere, I have explored this issue using rank-order analysis; here, I explore it with simulation experiments, using raw material occurrence distributions and a random walk model to generate expectations for the null model. The results help strengthen our ability to test the null hypothesis that toolstone acquisition reflects toolstone distributions and nothing more.

**Collins, Michael (University of Texas, Austin)**

[151] *Diagnostic Artifact Distributions as Indicators of Hunter-gatherer Adaptations on the Southern Plains Periphery, Paleoindian to European Contact Times*

Diagnostic artifact types, primarily projectile points, occur in twenty two brief "style intervals" during the long hunter-gatherer record of Central Texas. Patterns in the distributions of these types in various environmental zones beyond Central Texas vary with changes in paleoclimatic conditions. During xeric intervals, distributions tend to be restricted to better-watered environments whereas in mesic intervals, distributions are more expansive and include evidence for big game hunting.

**Colwell-Chanthaphonh, Chip (Center for Desert Archaeology)**

[122] *Cultural Extermination and Archaeological Protection: Native Americans and the Development of the Antiquities Act of 1906*

In the late 19th century, while advocates garnered support for a law protecting America's archaeological resources, the United States government was seeking to dispossess Native Americans of traditional lands and eradicate native languages and cultural practices. That the government should safeguard Indian heritage in one way while simultaneously enacting ruinous policies of cultural annihilation deserves close scrutiny, and may provide insights into the ways in which archaeology is drawn into complex socio-political processes. Focusing on the Southwest, this paper aims to further contextualize the Antiquities Act of 1906 by exploring what was happening in American Indian communities during its development.

**Colwell-Chanthaphonh, Chip** [94] *see Altha, Mark*

**Comer, Alicia (Indiana State Museum)**

[113] *Archaeology Education in a Museum Setting: Lessons from the Indiana State Museum*

A museum setting can offer a unique opportunity for providing outstanding archaeological programming. By utilizing the talent and resources of archaeologists, educators, and marketing and exhibits staff, museums can be at the forefront of archaeology education. At the Indiana State Museum, educators work closely with archaeologists to host teacher workshops, school programs, camps, demonstrations, and public outreach programs. Internal support structures in the way of marketing and graphic design allow programs to achieve high professional quality and visibility.

**Conard, Nicholas (University of Tuebingen), Saman Heydari (National Museum of Iran) and Elham Ghasidian (National Museum of Iran)**

[92] *Paleolithic Settlement Dynamics of the Zagros and Anti-Lebanon Regions*

This paper discusses the patterns of Paleolithic settlement and landuse in the Zagros Mountains of northwestern Iran and Anti-Lebanon region of Syria. We examine the causes of the distinct spatial and temporal patterning of sites observed in both regions, and test hypotheses that site distributions can be explained on the basis of climatic changes and new behavioral adaptations.

**Conkey, Margaret (University of California, Berkeley)**

[153] *Doing Theory: A Feminist Perspective*

The point of this paper is to consider the practice of theory: who does it, what counts as theory, and how do "theorists" mobilize theory in and for archaeology, taking into account that theory can be viewed in different ways and as "doing" different things. Particular attention will be paid to the gender of theory. As well, the relative lack of explicit engagement with feminist theory by those "doing gender" in archaeology is discussed as a way of perpetuating certain ideologies, while professing to avoid the political dimensions of feminist theory.

**Conkey, Margaret (University of California, Berkeley)** [61] *Discussant*

**Conlee, Christina A. (Texas State University)**

[18] *One Thousand Years of Cultural Development at La Tiza, Nasca, Peru*

The large site of La Tiza in the Nasca Valley was inhabited from the late Formative through the Late Intermediate Period (200BC- AD1400). Spanning over 1000 years, this location has one of the longest occupations in the drainage. Recent investigations highlight changes in domestic life and mortuary practices over time. These include an initial settlement in the late Formative followed by domestic use and extensive cemeteries during the Nasca Culture. Subsequently, Middle Horizon terraces and tombs were constructed. The last use of La Tiza was in the Late Intermediate Period and it then appears to be abandoned at the Inca conquest.

**Connell, Samuel (JPAC-Central Identification Laboratory)**

[4] *Identification of Burial Features in Vietnam Using Three Remote Sensing Techniques*

Identification and recovery of subsurface features with human remains that have been lost in tropical environs using geophysical techniques has been a frustrating enterprise. The mission of the Joint POW/MIA Accounting Command and the Central Identification Laboratory is greatly enhanced by using three remote sensing techniques in conjunction with GIS to identify subsurface anomalies that indicate the possible locations for burial of service members lost during the Southeast Asia conflict. These techniques can be used worldwide to augment investigations covering large surface areas, contributing data that pinpoints specific locations for further excavation.

**Connolly, Margie (Crow Canyon Archaeological Center)**[10] *Sharing Plans: Multiple Perspectives on Crow Canyon's Pueblo Learning Center*

Developing the construction plans and creating curricula for Crow Canyon's Pueblo Learning Center required extensive consultation between the Center's staff and its Native American advisory group. Through this process, much was learned about contemporary Indian concerns, as well as educational priorities. The consultation process significantly influenced the design of the Pueblo Learning Center and helped shape the curriculum. Is it appropriate for an educational institution to build a traditional structure such as a kiva, or teach students to grind corn? These questions generated a wide variety of perspectives on teaching about the ancient Pueblo history of the Mesa Verde region.

Conrad, Lawrence [67] *see Emerson, Thomas***Conrow, Michael (LaPorta and Associates, L.L.C., Geological Consultants) and Philip LaPorta (LaPorta and Associates, L.L.C., Geological Consultants)**[109] *Bedrock Hammerstone Quarries in Cambrian-Ordovician Quartzites along the Eastern Shore of Lake Champlain*

Five chert-bearing carbonate units, capped by three quartz-sand sequences, comprise the Cambrian-Ordovician succession of the Champlain Valley, New York. All three quartz-sand sequences are proximal to prehistoric quarries developed in the chert horizons. Impact objects, picks, wedges, and beaked hammerstones, mapped at the chert quarries, are fashioned from the quartzite sandstone. The quartz sandstone is quarried to produce mining instruments that were utilized at the chert quarries, despite the presence of Precambrian glacial erratics on the landscape. The stratigraphic and structural characteristics of the chert-bearing dolomites are interpreted as requiring mining tools of a specialized rheology, which the quartzite provides.

**Contreras, Daniel (Stanford University)**[160] *Uncovering the Temple Landscape: Problems of Topographic History and Settlement Survey in the Geologically Dynamic Valley of Chavín de Huántar*

Recent work in the Chavín area has demonstrated that even extensive and dense settlements are virtually invisible to traditional archaeological survey. Massive amounts of downslope deposition in the valley of Chavín have covered them in the geologically brief span of the last 2-3000 years. This paper describes ongoing efforts to address this problem through combining geomorphological and archaeological survey and mapping of the valley. Preliminary results include evidence of 1) massive and ambitious Chavín-era landscape modification, and 2) substantial post-Chavín geological activity. Through improved understanding of these two processes, we are developing a sense of the temple landscape of Chavín.

**Cooke, Richard G. (Smithsonian Tropical Research Institute)**[123] *Differential Ritual and Dietary Use of Neotropical Faunas: A Comparison Based on Archaeozoological Research at Cerro Juan Díaz*

Animal remains are widespread at Cerro Juan Díaz being found in kitchen and fill deposits and in burials as artifacts or food offerings. Animals used for food are mostly widespread denizens of coasts, riverine zones, and open country. Animals used to make personal adornments include mundane taxa, such as lizards, species that were not used for food, i.e., dogs and "special" animals such as felines, boobies and predatory birds. The spatial distribution of macaw bones suggests a special use. I discuss how these disparate distributions relate to regional animal communities and human effects upon them in pre-Columbian times.

Cooke, Richard G. [7] *see Pearson, Georges*; [123] *see Dickau, Ruth*; *see Ranere, Anthony***Cooney, Kathlyn M. (Stanford University)**[45] *Apprenticeship and Figured Ostraca at the Ancient Egyptian Village of Deir el Medina*

The artisans who worked on the ancient Egyptian New Kingdom Royal Tombs also produced thousands of ostraca, limestone chips with informal sketches. I argue that most craft training probably did not happen in a formal setting, but informally at the work site and in the craftsmen's village. Sketching on ostraca provided not only the opportunity to learn and practice the accepted artistic forms, but also to test new forms and combinations. Informal sketching was one of the main methods through which style was maintained, but it was also the avenue to taste change, by which styles were updated and changed.

**Cooney, Kevin (Boston University)**[100] *Urbanization and Chronological Change in Western Sicily: An Indigenous Perspective*

Explanations of early European culture change have focused on migrations and diffusion from other centers of civilization. Explanations should be derived from indigenous cultures. An investigation of the process of urbanization in Late Bronze Age (LBA), Early Iron Age (EIA), and Hellenistic societies of western Sicily, examined the design and layout of three chronologically sequential hilltop settlements. Analysis of established Mediterranean urbanization models shows that the development of these settlements is the result of both external influence and indigenous choice.

**Cooper, Charlotte (University of California, Santa Cruz) and Michael A. Etnier (University of Washington)**[26] *Mathematical Modeling of Human and Marine Mammal Interaction in the Prehistoric Monterey Bay*

Although zooarchaeology studies dynamic interactions between humans and their environment, interpretations are limited if a prey's modern lifeway is assumed constant throughout prehistory. Archaeology of the Pacific Coast seeks to understand prehistoric distribution patterns of the northern fur seal (NFS), and faunal analyses at MNT-234 (Elkhorn Slough, California) can elucidate possible rookery locations, human exploitation, and migratory patterns in the Monterey Bay area. Modeling these patterns requires indices of age-at-death, range of NFS through ocean currents and isotopic signatures, harvest rates, and ecological changes affecting population sustainability. Such a model aids interpretation of human interactions with the prehistoric environment.

**Cooper, H. Kory (University of Alberta) and John Duke (University of Alberta)**[28] *Preliminary Results of Native Copper Source Determination in Southeastern Interior Alaska Using Neutron Activation Analysis*

Prior to the arrival of explorers and fur traders in northwestern North America in the 18th century, copper was highly prized among indigenous groups. Nuggets of native copper (i.e., metallic, 98-99% pure) were made into artifacts that circulated through a trade network distributing prestige goods throughout the North Pacific region. Much of this copper is believed to have originated in southeastern interior Alaska, in what is today, Wrangell-St. Elias National Park. This poster presents the preliminary results of a study investigating the copper trade of this region using neutron activation analysis for source characterization based on trace element data.

**Cooper, Judith (Southern Methodist University)**[118] *Solving Puzzles Using GIS? A Model for Refitting Chipped Stone*

Chipped stone refitting is a valuable aspect of archaeological site investigation. In particular, it offers a means of teasing apart sites with complicated taphonomic histories. Unfortunately, refitting is labor intensive and time-consuming, thereby making it impractical for most projects. A solution is proposed using GIS to reduce the sample of potentially refittable pieces to a manageable size by selecting - through a model using raw material type, cortex, and breakage patterns - the most probable refits from the pool of possible matches. A surface lithic scatter is used as a test-site for the model, showing the method's advantages and disadvantages.

**Copas, Jean [10] see Kennedy, William****Copeland, Lorraine (retired)**[78] *An Historical Perspective on the Acheulean of Azraq, Jordan*

The results of the various periods of prehistoric research carried out at Azraq Oasis, from the days of Field's expeditions to the excavations of Harding, Kirkbride, Rollefson, Garrard, and others are reviewed, in the context of new and continuing work there in the last decade. These researches provide striking evidence of the occupation of Pleistocene oasis environments by early hominids.

**Corbett, Debra (U.S. Fish and Wildlife Service), Douglas Causey (Museum of Comparative Zoology, Harvard), Mark Clementz (Smithsonian Institution), Christine Lefevre (Departement Ecologie et Gestion de la Biodiversite, Museum national d) and Dixie West**[119] *Aleut Hunters, Sea Otters and Sea Cows: 3,000 Years of Interactions in the Western Aleutian Islands, Alaska*

The Bering Sea/North Pacific ecosystem is one of the richest marine environments on earth. In the past the region supported dense populations of hunting fishing people who developed

complex societies based entirely on the resources of the sea. We are using zooarchaeology and climatological reconstructions to study the effects of human exploitation and environmental change on the long term functioning of this ecosystem. Although the eastern Aleutian Island have been occupied for over 9,000 years the record in the west only spans 3,000. Our 10 year research project has found evidence for localized changes in biota attributable to hunting pressure, and region wide changes traceable to climate fluctuations. We are also looking at human/sea otter interactions and their implications for fundamental structuring of the near shore ecosystem.

**Cordell, Ann S. [95]** *see Wallis, Neill J.*

**Cordell, Linda (University of Colorado)**

[15] *The Pyramidal Mound at Pottery Mound*

I review evidence for the construction of an artificial pyramidal mound at Pottery Mound (L.A. 416) based on a profile of a trench through the purported mound, subsequent stratigraphic excavations, and comparisons with platform mounds in the U.S. Southwest and Paquime in Chihuahua. While evidence for an underlying mound at Pottery Mound is slim, the scale of adobe construction at the site is much greater than is normally credited. The amount of construction argues for a larger population and perhaps a greater length of occupation time at the site than is generally believed.

**Costopoulos, Andre (McGill University)**

[89] *Elements of a Theory of Archaeological Simulation*

Archaeological simulation needs to encompass social processes, their material consequences, as well as deposition and post-deposition processes. I will argue that it is possible and desirable to build a single approach to simulation which addresses all these with the goal of answering long-standing archaeological questions.

**Covey, R. Alan (American Museum of Natural History) and Karina Yager (Yale University)**

[66] *Herding Practices in Cusco, Peru: Evaluating the Inka-Colonial Transition*

The transition to Spanish colonial rule altered settlement patterns and political economy in the Cusco region (formerly the Inka imperial heartland). Sixteenth-century documents attest to the introduction of European herd animals and cultigens and the forced resettlement of native populations into Spanish-style towns. The documents do not describe the continued use of high elevation grassland areas near Cusco, where camelid flocks had been maintained in Inka times. New field data from an interdisciplinary research project provide perspectives on continuity and change in herding economies near Cusco a range of economic and social practices not accessible through the documentary record alone.

**Cowan, Jason (Washington State University)**

[101] *Ground Stone Analysis across Time: Looking at Intensification of Plant Resource Use in the Southern Columbia Plateau*

With over 6,000 years of occupation, the Birch Creek site (35ML181) on the Owyhee River in Southeastern Oregon is an excellent test case for studying long-term subsistence change on the Southern Columbia Plateau. The gradual intensification of plant resource use has long been accepted by archaeologists as one of these changes. This paper explores the use of macroscopic analysis techniques on ground stone artifacts to indicate this intensification. It does this by looking at variation in the ground stone assemblages from two different periods of site activity, a pre-pithouse, and a later pithouse occupation.

**Cowan, Wes (Cowan's Auctions, Inc.) [29]** *Discussant*

**Cowgill, George L. (Arizona State University)**

[117] *Good Goddesses But Not a Great Goddess? Rethinking Gender Identities at Teotihuacan*

Some argue that the principal deity of Teotihuacan was feminine. However, while agreeing that some Teotihuacan deity images are clearly feminine, Zoltan Paulinyi convincingly argues that there is no good evidence for a single overarching goddess. This challenges us to offer other interpretations of images and symbols formerly attributed to the Great Goddess, some of which are likely masculine. Alternative interpretations have implications for the ideological basis of Teotihuacan rulership. Among other things, it is possible that the office of rulership, if not named individual rulers, was celebrated in imagery.



**Craig, Douglas (Northland Research)**

[139] *Demography, Surplus Production, and Organizational Change in Preclassic Hohokam Society*

Preclassic Hohokam demographic patterns are reviewed and placed within a broader comparative framework. Discussion focuses on the role of demography as an agent of organizational change. As part of this discussion, the productive capabilities of several Preclassic irrigation communities are examined in light of the subsistence needs of the producing population. Also discussed is the extent to which demographic processes (e.g., population growth, migration) contributed to the emergence of the Hohokam ballcourt system.

**Craig, Nathan (University of California, Santa Barbara) and Manuel Perales (Proyecto Arqueológico Norte Chico)**

[70] *Organizational Variability of Activity Patterning at Caballete, Peru, Revealed Through GIS Analysis of Excavation Sidewall Profiles*

Caballete is one of the main Late Preceramic architectural complexes located in the Norte Chico Region of Coastal Peru. These sites are characterized by the presence of impressive mounds arranged around open areas suggesting a patterning of activities. However, at present little is known about activities performed at these complexes. Excavation exposed great variability in deposit depth and composition throughout the site, indicating differences in the use of space and suggest major changes occurring over time. GIS was used to organize profile data in real space and contribute to building a more complete picture of Late Preceramic monumental site use.

**Craig, Nathan [128]** see *Carlson, Keith*

**Craig, Oliver [119]** see *Bailey, Geoff*; [46] see *Forster, Marcus*

**Cramer, Ann [5]** see *Snyder, David*

**Crane, Brian (Parsons) and Paul Green (U.S. Air Force, Air Combat Command)**

[60] *Mountains of Data without a Shovel: Developing Cultural Resources Data Management Tools for the Next Century*

Federal agencies have accumulated vast repositories of cultural resources data; however, a lack of data standards and broad-based management tools has rendered data management and sharing difficult. The Air Force is developing database models and tools to better manage the growing size and complexity of DoD cultural resources datasets. This project will provide the database structures that will allow data to be shared within and across DoD and non-DoD organizations to fulfill data management and reporting needs. The data model was developed in concert with existing DoD standards and federal guidelines, and drew upon data models employed by several State Historic Preservation Offices.

**Craven, Sloan (Washington State University), George T. Jones (Hamilton College) and Charlotte Beck (Hamilton College)**

[88] *Examining Variability in Human Mobility during the Paleoarchaic in the Great Basin*

One interesting aspect of human adaptation during the Pleistocene-Holocene transition was an apparent decrease in mobility. Understanding this change in the organization of Paleoarchaic life ways in the Great Basin has been fraught with deficiencies in faunal and floral subsistence records. Shifts in the relative proportions of extralocal sources in lithic assemblages seem to demonstrate these changes. To complete the linkage of the empirical patterns with theory it is necessary to estimate patterned variation in energetic expenditure. To accomplish this, our study develops cost estimates for movement using GIS, showing variability in the energetic expenditure of travel to resources.

**Crawford, Karen L. (Jones & Stokes)**

[26] *Lacustrine Resource Exploitation during the Holocene at Owens Lake, California*

Previous studies on the Owens Lake playa have revealed the presence of a distinctive artifact type referred to as tabular bifaces. These bifaces appear to be multi-functional tools oriented to the exploitation of local lacustrine resources. This pattern of resource exploitation spans most of the Holocene. Their abundance on the Owens Lake playa and the spatial patterning of the associated sites along ancient shorelines may help explain diachronic change in lacustrine resource exploitation as a response to lakeshore fluctuations during the Holocene.

**Creamer, Winifred [128]** see *Haas, Jonathan*; see *Alarcon, Carmela*

**Creel, Darrell (University of Texas at Austin), Robert Speakman (University of Missouri), Hector Neff (Cal State-Long Beach) and Michael Glascock (University of Missouri)**

[48] *Compositional Analyses and New Perspectives on Mimbres Pottery Production and Exchange*

Use of neutron activation analysis in research on Mimbres ceramic production and exchange has progressed incrementally for more than a decade and has generated numerous revealing interpretations. Many of these studies, however, have not included all extant and relevant data. To date more than 2000 Mimbres pottery and clay samples have been analyzed at the University of Missouri, Texas A&M, and the Smithsonian Institution. By combining and reevaluating data from these three laboratories we are able to refine existing ideas and in some cases offer new interpretations and research questions regarding issues of production and exchange ranging in scale from household to community levels.

**Creel, Darrell [27]** see *Descantes, Christophe*

**Creese, John (University of Toronto)**

[45] *Secret Agents and Social Structures: The Effects of Social Contexts of Learning on Ceramic Decorative Motor-Performance Attributes*

An experiment was designed in order to test archaeological methods utilizing motor habit performance related "microvariables" as a means to identify the work of individual prehistoric potters. It was hypothesized, contra Hill (1977), that motor-performance related attributes are sensitive to their social contexts of learning, and change over time. Individuals in two groups, a "social pressure" and an "individualist" group, completed an incised design on wet clay plaques on two occasions. Principal Components Analysis and a Discriminant Analysis provide strong support for the proposition that individual patterns of motor-performance are directly influenced by the social environment of their acquisition.

**Crider, Destiny [117]** see *Ossa, Alanna*

**Crossen, Kristine [106]** see *Yesner, David*

**Crotty, Helen**

[15] *Western Pueblo Influences and Integration as Seen in the Murals of Pottery Mound*

Sikyatki-style designs on early plaster layers of Pottery Mound kivas provide striking evidence of Western Pueblo influences at the site as well as a terminus ante quem for mural art there. Western Pueblo traditions appear not only in the style and content of the paintings but also in the kiva architecture and in the decoration of Pottery Mound Polychrome. Rio Grande traditions, however, are also apparent in the art, suggesting that Pottery Mound inhabitants deliberately incorporated elements of both the foreign style and a local one. By the time the extant murals were painted, migrant groups, assuming they were the carriers of the foreign traits, had been assimilated into a society that expressed itself as a unique blend of East and West.

**Crowell, Aron L. (Arctic Studies Center)**

[114] *A View from the Edge of the World System: Alutiiq Villages under Russian and American Rule in Southern Alaska*

A world system model of political economy and ethnic interaction in colonial Alaska, initially applied to the pre-1867 Russian period (Crowell 1997, *Archaeology and the Capitalist World System: A Study from Russian America*), is extended to a comparison of Russian and U.S. rule. Indigenous accommodations to the two systems (the first based on forced labor and the second on 'free trade') are revealed in material culture flows between colonial centers and villages on the Native periphery. Data derive from new excavations and oral history in partnership with Alutiiq elders and tribal governments.

**Crowell, Elizabeth (Fairfax County Park Authority)**

[109] *William Henry Holmes and Modern Lithic Analysis*

William Henry Holmes conducted intensive and groundbreaking research on prehistoric stone quarries in the Washington D.C. metropolitan area. This research led to the formation of theories on lithic reduction and was the precursor to the development of our modern understanding of Native American lifeways. Holmes' research continues to contribute to our understanding of archaeology today. This paper will discuss materials from quarries discovered by William Henry Holmes and will also look at recently-discovered artifacts fashioned from the materials in Holmes' quarries.

**Cubbon, Emily (University of Virginia), Phil R. Geib (Navajo Nation Archaeology Department) and Carrie Heitman (University of Virginia)**

[52] *The Bluff Great House Mounds: Intentional Creations or Simply Disposal Areas?*

The cultural interpretation of earthen mounds at Great Houses in Chaco Canyon and elsewhere in the San Juan Basin has evolved since the 1930s. Once thought to be simple trash dumps, these features have been recently reinterpreted as intentional constructions, part of the "sacred architecture" of Great Houses. Chip Wills (2001) correctly observed that interpretations of mounds are heavily dependant upon observations made decades ago, when what is needed is new field research. The Bluff Great House Project provides this for a Great House in the northern San Juan region. Intentional construction is evident for the northern platform at this site.

**Cucina, Andrea (UADY) and Vera Tiesler (UADY)**

[72] *Nutrition, Life Style and Social Status of Skeletal Remains from Non-funerary and "Problematical" Contexts*

The present paper points at inferring social status and living conditions of the individuals whose remains were unearthed from non-funerary contexts in the Classic Maya society, resting upon the paleopathological evidence. The ongoing debate centers around the place of these people within the Maya society. The hypothesis on which we structure our investigation is that in the majority of cases these individuals were chosen among the lowest socio-economic levels or among those that, for health reasons, were less useful to the society. The skeletal evidence reveals significantly higher levels of pathological and developmental conditions than the ones encountered in the remains from funerary contexts.

**Cummings, Linda Scott (Paleo Research Institute)**

[53] *Zea Maize Cob Phytoliths, Genetics, Environment, and Archaeoclimatic Models*

Zea mays cob phytolith sizes record growing conditions, making this the ultimate environmental condition record for maize. Current research into maize cob phytolith size suggests that either maize received sufficient moisture for good maturation or it did not (on-off switch). Zea mays cob phytolith shape is closely controlled by genetics, providing a signature of the genetics and lineage of archaeological maize. Archaeoclimatic models identify past times when maize could have received sufficient moisture for good growth. Together, these tools allow examination of settlement strategies, economic strategies, trade, population movement, and potential for exploiting various local habitats for agricultural fields.

**Cummings, Linda Scott** [53] see Gear, W. Michael; see Puseman, Kathryn

**Curewitz, Diane (Washington State University)**

[104] *Maximizing the Value of Older Collections: Excavations in the Stacks at the Museum of Indian Arts and Culture, New Mexico*

Reports, site files, and older artifact collections from five Classic Period sites on Bureau of Land Management property in the northern Rio Grande of New Mexico were systematically searched to unearth samples useful in analyzing the production and exchange of Biscuit ware and micaceous culinary ware. Two unreported and never inventoried collections possessed excellent research potential. Three others contained sufficient material for in-depth compositional and technological analysis. Ceramics from these sites, collected between 1951 and 1992, will add greatly to understanding of production specialization in the northern Rio Grande Classic, without the need for additional excavation or surface collection.

**Cutright, Robyn (University of Pittsburgh)**

[49] *Food for the Dead, Cuisine of the Living: Mortuary Food Offerings in the Jequetepeque Valley, Peru*

This study, which examines food offerings in Lambayeque burials at Farfán, Jequetepeque Valley, Perú, moves beyond reconstructing diet to consider how food is manipulated for social and ritual purposes. Well-preserved botanical and faunal remains provide an archaeologically visible snapshot of cuisine, revealing culturally informed choices of ingredients, preparations, and culinary equipment. Comparison to food remains from burials and households at nearby Pacatnamú and later materials at Farfán suggests that the foods and preparation methods evident in these tombs represent a subset of daily cuisine, perhaps particularly symbolically or ritually appropriate for inclusion as funerary offerings.

**Cutrone, Daniel (Cal State University at Los Angeles)**

[22] *Middle Shrines in the Prehistoric Southwest*

At the beginning of the 20th century, Frank Cushing described Zuni places of origin as small

caves or openings in the rock. These places, known as middle shrines, have tremendous importance in contemporary Pueblo cosmology as places to communicate with a wide array of subterranean supernaturals. Spirit Bird Cave in Utah is a prehistoric middle shrine and, most likely represents an emergence point for the people of the Nancy Patterson site as well as a pilgrimage shrine for surrounding communities. Work in progress indicates that middle shrines are common features associated with influential sites.

**Cyphers, Ann [81]** *see Ramirez, Felipe*

**Daehnke, Jon (Archaeological Research Facility, University of California, Berkeley)**

[107] *Recognition, Sovereignty and Struggle: Stewarding Cultural Resources on the Columbia River*

Federal archaeologists in the United States serve as "stewards" of cultural resources located on federal property. Part of their role as stewards is to consult with the appropriate stakeholders, which often includes local tribes. But what happens when both a federally recognized tribe and a non-recognized tribe claim ownership of the site? Using the village site of Cathlapotle located along the Columbia River as a case sample, this paper will explore how questions of federal tribal recognition and sovereignty can dramatically complicate the already complicated realm of cultural resource stewardship.

**Dahlin, Bruce [116]** *see Hutson, Scott; [50]* *see Burnett, Richard*

**Dalan, Rinita (Minnesota State University, Moorhead) [155]** *Discussant; [40]* *see Lynott, Mark*

**Dalton, Ronald (Massachusetts Archaeological Society), Heidi Savery (Massachusetts Archaeological Society) and Eugene Winter (Massachusetts Archaeological Society)**

[127] *Building A Museum: The Robbins Museum of Archaeology*

The Robbins Museum of Archaeology is the Massachusetts Archaeological Society's museum and repository. The museum is dedicated to the Native cultures of New England, to preserving their material records, and to promoting archaeological awareness and public understanding of Native American culture through its exhibit public outreach initiatives, and educational programs. By working together, avocational and professional archaeologists can make exploring and preserving local sites and information important to the public and their communities. By approaching archaeology this way, we find that education is the greatest tool in promoting preservation and stewardship.

**Damp, Jonathan (ZCRE)**

[131] *Community Development, Agricultural Expansion, and the Role of Village of the Great Kivas*  
Frank Roberts excavated Village of the Great Kivas more than 70 years ago. Since that time the site has been an example of a Chacoan Period great house or outlier. One of the best examples of a southern expression of the Chacoan influence on the Colorado Plateau, the site is poorly understood in terms of its local context in the Zuni region. Recent survey in the area of Village of the Great Kivas, reanalysis of Roberts' work, and comparisons with other regional expressions places the site in a community context of social networks tied to a rain-fed agricultural expansion of the economic system.

**Damp, Jonathan [139]** *see Huber, Edgar K.; [74]* *see Zunie, Jerome*

**Dance, Wayne (U. S. Attorney's Office)**

[138] *Criminal Intent under the Archaeological Resources Protection Act: The Intricacies of Proving that the ARPA Prohibited Conduct was Done "Knowingly"*

The Archaeological Resources Protection Act of 1979 (ARPA) imposes criminal penalties for "knowingly" violating any of the statute's prohibited conduct provisions. Efforts to interpret and apply ARPA's criminal intent element - knowledge - confirm the Supreme Court's observation that "few areas of criminal law pose more difficulty than the proper definition of the mens rea [culpable state of mind] required for any particular crime." *United States v. Bailey*, 444 U.S. 394, 404 (1980). To establish criminal intent under ARPA, which facts must the government prove that the defendant knew when he engaged in the prohibited conduct? This paper discusses this complex issue.

**Daneels, Annick (IIA-UNAM)**

[13] *Archaeology vs. Ethnohistory: The Case of the Cotaxtla Province*

A 1000 sq. km survey of the Lower Cotaxtla basin in Central Veracruz, Mexico, revealed that the extent of the Cotaxtla province was much smaller than even the most modest historical

reconstruction offered to date. Archaeological evidence is presented on settlement pattern, architecture, way of life and religion, pointing out that the inhabitants conquered by the Aztecs in the second half of the fifteenth century were probably nahua groups immigrated during the eleventh century from the eastern Puebla-Tlaxcala plateau. The political entities were discrete and discontinuous, explaining the essentially patchy nature of the Aztec conquests.

**Daneels, Annick (IIA-Universidad Nacional Autonoma De Mexico) [148] *Discussant*; see Agüero, Adriana**

**Daniau, Anne-Laure [44] *see d'Errico, Francesco***

**Danielson, Dennis (Joint POW/MIA Accounting Command, JPAC)**

[4] *Bioarchaeological Implications Concerning the Effects of Termites (Isoptera) on Human Osseous Remains*

A search of the archaeological record reveals that very little is known or recorded concerning termite (Isoptera) damage to bone, in particular human osseous remains. This poster examines characteristic termite damage to human remains recovered from two World War II B-24 Liberator bomber crash sites excavated in Papua New Guinea by recovery teams from the Joint POW/MIA Accounting Command in 2003 and 2004.

**Danien, Elin (University of Pennsylvania Museum of Archaeology and Anthropology), Lynn Grant (University of Pennsylvania Museum of Archaeology and Anthropology) and Gene Ware (Brigham Young University)**

[50] *Connecting the Pots: The Chama Conservation Project*

Nearly 90 years after pioneering archaeologist Robert Burkitt excavated them, this unique collection of Maya polychrome pottery is receiving overdue attention. With funding from the Getty Conservation Trust, these vessels, the only provenienced museum collection of Chama polychromes, are being fully conserved using modern materials and methods and analysed using the latest scientific techniques, including residue analysis to trace original contents and multi-spectral imaging for complete documentation. The conservation process has provided unexpected results. This poster will document the process graphically and show how modern conservation of early collections can add to our knowledge of ancient craft and cultural use.

**Darling, J. Andrew (Gila River Indian Community) and B. Sunday Eiselt (University of Michigan Museum of Anthropology)**

[48] *Consumer-Producer Relations and Interethnic Economy of Nineteenth-Century Hispanic Communities in the Lower Chama Valley, New Mexico*

Reoccupation of the northern Rio Grande after 1750 ushered in a persistent cultural formation known widely as Hispano Society. Aspects of Hispanic economy are examined through INAA of micaceous ceramics from the Chama District. Rancho and plaza-town populations were primary consumers of micaceous wares, while Jicarilla Apache and Pueblo pottery were producers. Geochemical and stylistic clues, particularly raw clay source utilization patterns, identify the ethnic background of producers and their relationship to non-Indian consumers. Two contrasting forms of supply are recognized at Hispanic archaeological sites: direct supply by resident Jicarilla producers and market supply by non-resident Pueblo and Hispanic producer-traders.

**Daron, Steven (National Park Service)**

[3] *St. Thomas, Nevada: Inundated by the Hand of Man, Resurrected by the Hand of God*

The ongoing drought in the Rocky Mountain west has caused a drop in the water level in Lake Mead. The dropping water level has exposed the remains of the town of St. Thomas, Nevada. Because of the exposure of the town, the National Park Service and the Bureau of Reclamation have had to deal with several unanticipated management issues. This poster discusses the history of St. Thomas and examines the management issues related to its emergence.

**Darras, Véronique (Centre National de la Recherche Scientifique -CNRS, Nanterre) and Brigitte Faugere (Université de Paris I)**

[149] *Architectural Traditions and Constructive Systems in the Chupicuaro Region (Guanajuato, Mexico) throughout the Late and Terminal Preclassic Period*

Since 1946 the history of the Chupicuaro cultural complex has known an agitated fate of reversals and adjustments, concerning the question of origins, temporal placement and the role attributed to local populations. Recently acquired knowledge within the Valley of Acambaro permits a better understanding of different architectural expressions, both monumental and domestic, and their evolution from the 6th century B.C. until the end of the Formative period. The analysis of architecture allows us to reflect upon the origins of the population in the region, and on the position of these populations in the cultural dynamics from central and western Mesoamerica.

**Darras, Véronique [149]** *see* Faugere, Brigitte

**Darwent, Christyann [28]** *see* Darwent, John

**Darwent, John (University of California, Davis), Christyann Darwent (University of California, Davis) and Genevieve LeMoine (The Peary-MacMillan Arctic Museum)**

[28] *Survey at 78 Degrees: Archaeological Investigations in Inglefield Land, Northwestern Greenland*

A systematic archaeological survey by foot and boat was undertaken of the areas around Force Bay and Marshall Bay in Inglefield Land, Northwestern Greenland, during the summer of 2004. Approximately 25 km of rugged coastline was investigated by a seven-person crew from the US, Canada, Denmark and Greenland. This was the first time these regions had been visited by archaeologists since Eric Holtved's excavations of Thule dwellings in the 1930s. We recorded over 800 cultural features (e.g., sod houses, tent rings, meat caches, fox traps, kayak stands, and graves), which spanned the entire period of human occupation in the High Arctic from around 2000 B.C. to historical and recent use of the area.

**David, Robert (Portland State University)**

[137] *Rock-Art as Shaman's Tools: Testing and Refining Landscape Symbolism Models in the Klamath Basin*

The landscape symbolism model was developed for studying Native American rock-art in the Great Basin and far western North America. Grounded in indigenous people's perceptions of the supernatural landscape, this model enables researchers to interpret rock-art in terms of ritual behavior. In pre-historic times the Klamath Indians of Southern Oregon were connected to Great Basin groups through trade, warfare, and resource acquisition. Klamath perceptions of the supernatural world are very similar to those of their Great Basin neighbors, suggesting that the landscape symbolism model will yield insights into that region's corpus of art. Preliminary research appears to confirm this.

**Davila, Patricio (Instituto Nacional de Anthropologia e Historia)**

[157] *Archaeological Investigations in the Huastec Region*

The archaeological work in the Huastec region begins with Cecilia and Eduard Seler in 1887. During the twentieth century, investigations are scarce and focused mainly in trying to tie the archaeological data with the ethnohistorical references, abusing in the generalization of evidences towards the entire region. I will summarize the main investigations: from Seler to Gordon F. Ekholm, Richard S. MacNeish, William T. Sanders, Garcia Cook and Merino among others, but primarily I shall synthesize the advances that we inherited from the twentieth century about this controversial Huasteca.

**Davis, Elaine (Crow Canyon Archaeological Center)**

[113] *Understanding, Understanding: A Summary of Research in Archaeology Education*

Archaeology education emerged from the need to build public support for archaeological research and cultural resource preservation. Those who specialize in teaching about archaeology have sought to understand how well these goals are being achieved but, as the field has matured, they have also identified some deeper questions about how knowledge of the past is constructed. Research in the areas of archaeology and history education is providing some insight into these issues. This presentation summarizes some of the current understandings about understanding the past.

**Davis, Elaine [10]** *see* Steele, Sean

**Davis, Katherine (Harvard University)**

[87] *Monumental Residentialism: Preliminary Results of Excavations in the Domestic Area of La K'arana, Tiwanaku*

The quality and elaboration of the construction of residential structures is a simple and straightforward index for judging relative status across a site. However, preliminary research in La K'arana, a domestic area directly north of the monumental core of Tiwanaku, presents an apparent exception to this rule where labor intensive stone-faced platforms serve as the base for modestly built small residential structures. Reviewing previous models of residential form and distribution at Tiwanaku period sites, this presentation addresses this apparent paradox and presents an alternative residential form and pattern existing within the monumental core.

**Davis, Mary Anne (Idaho State Historical Society), Ann Ferguson (Bonner County Historical Museum) and Matthew Russell (National Park Service)**

[36] *Underwater Archaeology in Idaho: The Lake Pend 'Oreille Dugout Canoe*

On New Year's Day 2004, sport divers located a submerged wooden artifact in Lake Pend Oreille in northern Idaho. This artifact appears to be a short dugout canoe. Archaeologists from the Submerged Resources Unit at the National Park Service recorded the dugout canoe and took samples for species identification and dating purposes. The on-going research by the authors suggests the canoe is historic and possibly associated with the fur trade era.

**Davis, Owen [82]** see Mabry, Jonathan

**Davis-Salazar, Karla L. (University of South Florida), E. Christian Wells (University of South Florida), Jose E. Moreno-Cortes (University of South Florida), James R. Hawken (Kenyon College) and Jolien S. Verdaasdonk (University of South Florida)**

[116] *A Social and Natural Landscape Survey of Quebrada Communities in Northwestern Honduras*

This paper presents the results of a 15-square kilometer, full-coverage pedestrian survey of ancient and modern settlement and land use in the Palmarejo region of northwestern Honduras. The results indicate that the region's inhabitants settled riparian ecozones along quebrada edges that contained strategic resources, including high quality clays, building materials, fertile soils, and potable water. The Late Classic (c. AD 600-900) capital centers of each of the five 'quebrada communities' studied contain disproportionate numbers of residential groups and agricultural features, suggesting that some communities may have been more successful than others at attracting and organizing surplus labor.

**Day, Jane Stevenson (Denver Museum of Nature and Science)**

[54] *Heads of Flesh and Stone*

For at least 1,000 years before the Spanish invasions of 1521 a Trophy Head cult flourished in the Atlantic Watershed Region of Costa Rica. Elements of this warrior cult are clearly depicted in magnificent stone sculptures of bound prisoners, young nubile women, warriors, axes and trophy heads. This paper will attempt to place the violent nature of this head hunting cult in cultural context and focus on the ritual role it played in assuring the regeneration cycle of the earth.

**De Anda Alaniz, Guillermo (UADY)**

[72] *Sacrifice and Ritual Body Mutilation in Postclassic Maya Society: The Taphonomy of the Human Remains from Chichen Itza's Cenote Sagrado*

The idea of ritual sacrifice of living individuals at Chichen Itza's Sacred Cenote has always dominated. The present study contributes to the debate from an osteo-taphonomic perspective, by analyzing the skeletal remains recovered from the cenote during the 1961 and 1968 explorations. We expected to find specific signatures of perimortem violence pointing to confirm such hypothesis. Nonetheless, the variety of skeletal marks encountered witness a large array of perimortem and post-mortem rituals, as defleshing and dismemberment among the others, that indicate that the ritual complex performed was much more sophisticated and not limited to tossing in living individuals.

**de Boer, Trent (Washington State Department of Transportation)**

[59] *The Origin and Evolution of the Archaeological Zine "Shovel Bum"*

The archaeological zine "Shovel Bum" was initially created to portray the day-to-day life of the CRM archaeologist to a non-archaeologist reader. Over time, the zine has evolved into a "celebration" of the shovel bum lifestyle, exploring such topics as motel living, construction monitoring, field vehicles, and more. The diversity found in each issue of "Shovel Bum" owes in part to submissions from like-minded shovel bums across the country. Ultimately, "Shovel Bum" provides the reader with a glimpse of life from the trenches, with all the joys and hardships that go hand-in-hand with being a shovel bum.

**de la Vera Cruz, Pablo [49]** see Rademaker, Kurt

**De Langhe, Edmond [164]** see Ball, Terry

**de Leeuw, Jan [157]** see Nance, C. Roger

**De Leon, Jason (Penn State) and Kenneth G. Hirth (Penn State)**

[149] *Going Through Changes: Identifying Transitions in Obsidian Blade Trade during the Formative Period in Western Mesoamerica*

During the Formative period in Western Mesoamerica, finished prismatic blades were extensively traded before blade cores were traded. This paper examines the shift from trading blades to trading cores using data from Central Mexico. For comparative purposes, data is used from the Valley of Oaxaca, where all obsidian was imported, is used. We offer a hypothesis regarding how to identify this significant shift in obsidian exchange and discuss some of the important socioeconomic and sociopolitical implications that underlie this change.

**De Oliveira, Paulo E. (Universidade Guarulhos/FMNH-Chicago) and Mark B. Bush (Florida Institute of Technology)**

[7] *Vegetational and Climatic Change during the Late Quaternary of South America Revisited*

Palynological analyses in alliance with CO<sub>2</sub>, oxygen isotopic records and palaeobotanical data are now shedding new evidence for the paleoenvironments of South America since the Last Glacial Maximum, at ca. 20,000 years B.P. These data indicate that presently semi-arid, such as the Brazilian caatinga, became extremely moist during glacial maxima, whereas drier conditions occurred in areas which are presently relatively humid, such as parts of southern and southeastern Brazil. Contrary to the Refuge Hypothesis proposals, large tracts of the Amazon remained moist and forested, whereas in eastern Brazilian Amazon as well as Colombia became drier, as indicated by the replacement of forest by savanna. This presentation will provide an overview of the current paleoenvironmental data for South America prior to and after the arrival of the first human populations.

**Deagan, Kathleen (University of Florida) [114] Discussant****Deal, Michael (Memorial University of Newfoundland)**

[135] *Ethnoarchaeological Perspectives on Domestic Ceramic Production and the Formation of Household Ceramic Assemblages*

Most domestic potters have a dedicated production area, which is composed of smaller specialized activity areas devoted to the processing and storage of raw materials, the modeling and firing of vessels, and the storage of newly fired vessels. These activities are conducted alongside, and share space with, general domestic activities. Ethnoarchaeological information from the Maya Highlands of Mexico and Cyprus is used to explore the potential variability in ceramic production areas and their relationship to the formation of household ceramic assemblages. It is argued here that ethnoarchaeological research can aid the identification of domestic ceramic production in archaeological contexts.

**DeBlasis, Paulo [30] see Figuti, Levy; see Bueno, Lucas****Dedecker, Melanie (University of Arizona)**

[69] *An Archaeological Analysis of the Piki Complex at the Homol'ovi Site Cluster: A Gendered Approach*

The earliest archaeologically documented appearance of the piki complex occurs at the Homol'ovi settlement cluster, a prehistoric Hopi settlement in the Middle Little Colorado River Valley, occupied between AD 1260-1400. The piki complex, which centers on piki, a paper-thin cornbread, as well as on several other material and behavioral components, first appears about AD 1260 at Homol'ovi, becoming increasingly formalized through time. By considering the development of the piki complex at Homol'ovi through several gendered theoretical approaches - as a technology, a gendered space, and a cuisine - I consider how piki affected the status and power of women at Homol'ovi.

**DellaSalla, Joanne (University of Denver)**

[106] *The Paleoindian Occupation of South Park, Colorado*

South Park is Colorado's largest intermountain basin, located to the east of the Continental Divide. The Paleoindian period in this region of the Rocky Mountains has received limited professional archaeological attention since the 1940s. The non-systematic collection of surface artifacts has greatly impacted the archaeological record of this region. In an effort to salvage this information and to catapult South Park into Rocky Mountain Paleoindian studies, over one hundred Paleoindian artifacts were documented from private and public collections. Analysis of these artifacts indicates that South Park was continuously occupied throughout the entire Paleoindian period, beginning with the Clovis occupation.



**Dello-Russo, Robert (Maxwell Center for Anthropological Research, University of New Mexico) and Patricia Walker (Escondida Research Group, LLC)**

[141] *The First Radiocarbon Dates from Lemitar Shelter: Implications for Early Holocene Archaeology in the Southwest*

2003 field research at Lemitar Shelter expanded upon earlier work at the site and generated the site's first series of radiocarbon dates. As currently understood, the shelter sediments are a minimum of 4.29 m deep and were laid down in at least 7 geological strata. Radiocarbon dates and temporally diagnostic artifacts indicate cultural occupations for the Middle Archaic period (4200 BP) through the Pueblo III period (AD 1300) but, of significance for Southwest rockshelter archaeology, chronometrics also suggest the potential for early Holocene occupations during the Early Archaic (5200 BP) and Late Paleoindian (8800 BP) periods.

**Deloge, Alana [50]** see *Ardren, Traci*

**Demarest, Arthur A. (Vanderbilt University) and Molly Morgan (Vanderbilt University)**

[81] *Ideology, Identity, and the Origins of Social Complexity in Southern Mesoamerica: Some Reflections on the Evidence and the Issues*

The pioneering work of Lowe began the process of plotting Isthmian Preclassic assemblages and associating them with sub-regions, ethnicity, language, and population movements. Subsequent work at Takalik Abaj, La Blanca, and elsewhere has revealed both the importance and the surprising complexity over time of such patterns. Meanwhile, Clark, Blake, and others have interpreted these patterns to address the central, inscrutable, issue: the "causes" of the rise of ranking and inequality. The paper touches upon the debate on these issues. Then we ponder the omnipresence of ideology and identity as factors in the development of coastal Mesoamerica and similar regions.

**Demo, Pam (University of Idaho)**

[11] *River Street: Living on the South Side of the Tracks*

Sitting on "the south side of the tracks," this vernacular neighborhood claims a vigorous, colorful history. Once home to Boise's entrepreneurial elite, encroaching rail lines altered the residential setting and severed it from the city core. Thereafter it became home to an economically and culturally mixed population. Allowed to deteriorate and hammered by 1970s urban renewal, the cultural and architectural fragments of Boise's oldest neighborhood now await obliteration or reconfiguration by current urban redevelopment plans. Long neglected and minimally documented, the 'hood' and its history and reconstructed through architecture, personal narrative, photos, maps and records.

**Denning, Kathryn (York University, Canada)**

[107] *Stewardship for the Seventh Generation*

In this era of first, second, third, fourth, and fifth worlds, can one be a "caretaker of and an advocate for the archaeological record for the benefit of 'all people'?" (SAA Principle of Stewardship). Is this idea sound in principle? Is it useful in practice? How might we reconceive of stewardship in a way that honours future generations while dealing with constant external change? Pertinent challenges include shifts in constructions of national identity, transnational corporations' behaviour, government structures, modes of commodification and trade, communications networks, and emerging technologies of public transportation that leave nothing isolated - not even outer space.

**Densmore, Julie (University of North Texas)**

[150] *Testing Hypotheses of Variation in Morphology of the Gary Dart Point*

The Gary point is a Late Archaic dart point that exhibits an unusual amount of morphological variation. Many archaeologists explain this variability as temporal change, and research shows a decrease in length and width from the Archaic to Late Prehistoric periods. Similarly, Schambach (1978) accounts for the variability by citing change from large, heavy shouldered specimens, to small, weak-shouldered specimens. This research investigates these hypotheses and assesses the effects of resharpening on shoulder-area form, and how the quality of the raw material used plays a part in this variation.

**Dent, Richard (American University)**

[5] *Post Hunter-Forager Worlds in the Potomac Valley: Origins and Evolution of Village Life*

This poster looks at the transition to agriculture at three late prehistoric village sites in the Potomac Valley spanning a relatively restricted temporal slice of the past, from circa AD 1300 to

1600. I argue we see evidence through these sites of a patterned transition to new subsistence strategies and from traditional to new and more complex social lives. It is this latter transition that is the focus of this presentation. The poster particularly looks at the impact of this shift on village landscape, and how the built environment served to reproduce a new way-of-life.

**Derbish, Mary (Cherry Creek School District)**

[146] *That's How You Find Out How Real Archaeologists Work- When You Do It Yourself: Children's Experiences with Archaeology, a Qualitative Study*

This study addresses the call in archaeology education literature for greater accountability to evaluate the impact of public outreach programs. Fourth grade students' participation in a classroom archaeology education program is assessed to determine how children's formative historical cognition skills and personal experiences filter archaeological information as well as how the new knowledge is used to form opinions about archeological resource protection. Results indicate the importance of hands-on activities and role play to master learning objectives, and relateable, age appropriate experiences to begin dialogue regarding cultural stewardship issues at the elementary level. Qualitative data include interviews, written narratives, educational assessments, and participant observation.

**Dering, Phil [67]** *see Boyd, Carolyn*

**d'Errico, Francesco (CNRS), Maria-Fernanda Sanchez-Goni (CNRS-EPOC), Pierre Sepulchre (CNRS-CEA), Anne-Laure Daniau (CNRS-EPOC/CNRS-CEA) and Gilles Ramstein (CNRS-CEA)**

[44] *The Heinrich 4 Event, a Delaying Factor for the Extinction of Neanderthals in Iberia*  
Multiproxy analysis of marine cores located off Iberia and climatic modelling indicate that the Heinrich event 4, a cooling event dated at 39,000 cal. years, produced a drastic decrease in the sea surface temperatures and an expansion of aridity over the peninsula. This led to the desertification of the southern Iberia and the replacement of arboreal taxa by herbaceous in the north. Archaeological data are consistent with the hypothesis that these abrupt ecological changes may have determined a contraction of Neanderthal populations and the timing of their extinction.

**Des Lauriers, Matthew (University of California, Riverside)**

[19] *The Currents of California: Integrating the Investigation of Isla Cedros and the Channel Islands*

The results of three years of fieldwork on Isla Cedros, Baja California indicate that it represents an ideal location to comparatively test hypotheses developed to explain Channel Islands prehistory. In order for hypotheses about past human behavior to be tested effectively, both variability and similarities must exist within the data consulted in the study. Since for many years California Archaeology has operated within artificial geographic boundaries, a great deal of variability has been ignored. Integrating Isla Cedros into the California research universe is only the first step in broadening our horizons in productive and expansive ways.

**Desailly-Chanson, Yann (Yale University) and Patricia A. Urban (Kenyon College)**

[129] *The Right Tool for the Right Purpose: Clay-Working Tool-Kits in Northwestern Honduras*  
Deposits at Las Canoas produced two artifact classes pertinent to ceramic manufacturing. First are pot-stands. These generally look like flared-neck jars truncated at the shoulder. Most were deliberately made, while others were jars made into stands after breakage. Second are tools made from sherds, either opportunistically or deliberately. Most fall into several form classes: triangles, circles, half- and quarter-circles, diamonds, and rectangles. Their edges show use wear, and the deliberately made items include evidence of shaping by breaking and abrasion. Similar tools found in lower frequencies at neighboring sites and in the Naco valley are also associated with ceramic manufacturing.

**DeSantis, Theodore [18]** *see Farnum, Julie*

**Descamps, Francoise [50]** *see Carballo, Jennifer*

**Descantes, Christophe (University of Missouri), Darrell Creel (University of Texas-Austin), Robert Speakman (University of Missouri), Michael Glascock (University of Missouri) and Samuel Wilson (University of Texas-Austin)**

[27] *Instrumental Neutron Activation Analysis of Pottery from the George C. Davis (41CD19) Site, Texas*

The George C. Davis site (410E19) in central East Texas holds a prominent position in American

archaeology. Fifty prehistoric ceramic specimens from early Caddoan contexts (AD 800-1200) were analyzed by instrumental neutron activation analysis (INAA) at the Missouri University of Missouri Research Reactor Center (MURR). The chemical compositions of the Davis ceramics were compared with five previously identified Caddoan ceramic compositional groups. Early Caddoan Davis ceramics likely originate from local clays in the Neches River Basin. The future collection and analyses of clays may help in discriminating the production zone further.

**Descantes, Christophe** [25] *see* *Speakman, Robert*; *see* *Popelka, Rachel S.*; [83] *see* *Ghazal, Royal*

**Desrosiers, Pierre (Avataq Cultural Institute)**

[150] *Palaeoeskimo Lithic Technology: Constraints vs. Adaptation*

The concept of the Chaîne opératoire is a practical one when considering complex lithic technology. For more than five years we have studied different aspects of Palaeoeskimo technology in Nunavik (eastern Arctic), from raw material procurement to final discard of tools. The application of this approach to Dorset collections is just starting to give good results, which we will present. The constraints linked to raw material availability and the Arctic environment stimulated an unusual and important adaptation of the lithic technology when compared to other prehistoric contexts.

**Dessart, James (McGill University)**

[89] *Implications of Stephen Wolfram's a New Kind of Science on Anthropological Simulation*

Anthropological processes, for the most part, have evaded researchers' attempts to be easily simulated using traditional mathematical methods. Stephen Wolfram proposes that the reason for this is these processes' irreducible complexity, and I will attempt to explain what implications this has on modeling of societies and their processes. Parallels will be drawn between cellular automata and human behaviour, and the need for realistic models thereof.

**Diaz, Claudia (Smithsonian Tropical Research Institute)**

[123] *Complejidad funeraria en el Pacífico Central de Panamá: análisis antro-po-esquelético de las sepulturas del sitio arqueológico Cerro Juan Díaz (Funerary Complexity at the Central Pacific of Panama: Anthropological Analysis of Skeletons from Burials at the Cerro Juan Díaz Archaeological Site)*

Cerro Juan Díaz ha proporcionado la mayor y mejor documentada muestra de esqueletos humanos en Panamá. Las sepulturas que consideraré pertenecen a la fase funeraria más antigua (cal 150-800 d.C.). Son nichos reutilizados que albergaban entierros secundarios ("paquetes") y osarios. A los infantes tempranos no se les daba tratamiento en "paquetes" aunque debió establecerse un requisito específico de edad. Esqueletos de individuos de ambos sexos y de infantes sugirieron que estas tumbas estuvieron reservadas a unidades familiares. Las ofrendas halladas en ellas destacan por su cantidad y calidad proponiéndose que algunos grupos de ajuares estuvieron relacionados con actividades específicas. (Cerro Juan Díaz provides the best and largest documented sample of human skeletons for Panama. The burials to be considered in this presentation are from the oldest funerary phase (cal 150-800 A.C.). They are from reutilized niches with secondary burials ("paquetes"/packages) and ossaries. Young infants were not buried in "paquetes," a treatment that surely was related to age. Skeletons of individuals from both sexes, as well as infants suggest that these burials were reserved for family groups. Offerings found on these burials are characteristically abundant and of good quality, and it is proposed that some groups of offerings were related to specific activities.)

**Dibble, Harold L.** [62] *see* *Blackwell, B.A.B.*; [93] *see* *Sandgathe, Dennis*

**Dickau, Ruth (Temple University) and Richard G. Cooke (Smithsonian Tropical Research Institute)**

[123] *Plant Use at Cerro Juan Díaz and Neighborhoods Based on the Analysis of Plant Remains and the Documentary Record*

Plant remains found at Cerro Juan Díaz comprise carbonized macrofossils, starch grains and phytoliths. Species diversity is very low with maize being, predictably, the most abundant taxon. Colonial accounts vouch for the widespread use of other staple cultigens in the area, such as manioc, and squash. We examine these data in the light of the pre-Columbian history of plant use and agricultural development and discuss how plant remains can aid archaeologists in reconstructing the range of activities that were carried out at this community.

**Dickens, Bill [69]** *see* Pevny, Charlotte

**Dickson, D. Bruce (Texas A&M), Mark Everett (Texas A&M), Robert Warden (Texas A&M), Richard Burt (Texas A&M) and James Bradford (Texas A&M)**

[142] *The Archaeology of the Greatest Generation: The Multidisciplinary Documentation of Point du Hoc Battlefield, Normandy, France*

Early on D-Day, June 6, 1944, U.S. Army Rangers scaled the 40 meter-high cliffs below the German battery at Point du Hoc, Normandy and destroyed the five 155 mm cannon there before they could fire on ships and troops landing on nearby Utah and Omaha beaches. The site of Point du Hoc, now administered by the American Battle Monuments Commission, is currently being thoroughly mapped and documented. As part of this effort, the largely-obiterated system of underground tunnels built there by the Germans are being located using archaeological surface reconnaissance together with ground penetrating radar, magnetometry and metal detection.

**DiCosola, Anne M. [27]** *see* Hoard, Robert J.

**Diehl, Michael (Desert Archaeology, Inc.)**

[1] *Recent Applications of Behavioral Ecology to Southern Arizona*

In the last decade, the study of prehistoric human resource use in southern Arizona has produced new insights concerning the introduction of crops to the Southwest prior to 1700 B.C., the subsequent interval of farming that lasted for two millennia, and the rapid intensification and primary dependence on crops that followed in the first millennium A.D. Key events include episodes of maize improvement during the first millennium B.C. and the first millennium A.D., and the introduction of ceramic storage vessels. The Classic Hohokam are enigmatic; diet breadth increased despite the use of high quality crops, reversing a three millennium trend.

**Diehl, Michael (Desert Archaeology, Inc.)**

[139] *Subsistence Economy Boundary Effects on Pithouse Period Social Organization*

Prehistoric social, political and economic organization evolved in an economy driven by non-industrial, subsistence farming based resource use. These phenomena interacted dynamically and were free to take a variety of forms. They were, nevertheless, constrained by local productive capacity. This paper reviews trends in pithouse period subsistence economies. Certain conditions, such as kinship-based resource tenure, may be presumed extant at all times. Owing, however, to limits imposed by production and demographic factors, extreme differences in social status were unlikely to be generated primarily as a consequence of the monopolization or cooption of material wealth or food.

**Diehl, Michael W. [161]** *see* Waters, Jennifer A.

**Dietz, C. (University of Montana)**

[103] *Structure, Function, and Dating of Cooking Features at the Bridge River Site*

The Bridge River Site is a large housepit village in British Columbia with a large number of cooking features or earth ovens scattered throughout the site. These cooking features were most likely used for the processing of animal and plant resources. One of the purposes of the Bridge River project is to determine the structure, function, and date ranges of these cooking features. In order to better interpret these features, modern earth ovens used by native people in the area were excavated. The results of that excavation are compared to the prehistoric cooking features in the village in order to assess relationships between the prehistoric and modern cooking features.

**Dietz, Michael (University of Missouri), John Staeck (College of DuPage) and Jirí Macháček (Masaryk University, Brno, Czech Republic)**

[100] *Best of Both Worlds: Czech-American Excavations at the Great Moravian Site of Pohansko*

A developing program of simultaneous excavations undertaken by the College of DuPage and Masaryk University-Brno at the Great Moravian site of Pohansko, Breclav, Czech Republic is discussed and initial results from the 2004 field season are presented. Comparisons of methodology, goals, and interpretation are made illustrating areas of complimentary strength between programs and to highlight areas where new approaches might be developed to further enhance archaeological knowledge of both Pohansko and the Great Moravian manifestation in general.

**Dietz, Michael [100]** *see* Staeck, John

**Dillehay, Tom (Vanderbilt University) [30]** *Discussant*

**Dillian, Carolyn (Rutgers University/CRCG), Charles Bello (CRCG) and M. Steven Shackley (University of California, Berkeley)**

[124] *Crossing the Delaware: Documenting Super-Long Distance Exchange in New Jersey*  
Super-long distance exchange has been documented through the occurrence of materials such as shell, copper, or obsidian from archaeological contexts. However, X-ray fluorescence analyses of five obsidian samples from archaeological sites in New Jersey have revealed connections with the western United States that are truly unprecedented. A discussion of archaeological provenience and geologic provenance is provided to situate these objects within a scientifically rigorous context. Finally, in this paper, we explore the role of the exotic as a symbol of places both known and unknown.

**Dirkmaat, Dennis (Mercyhurst College), Luis Cabo (Mercyhurst College), James Adovasio (Mercyhurst College) and Vicente Rozas (Centro de Investigaciones Forestales y Ambientales de Lourizán)**

[146] *Forensic Archaeology, Mass Graves, Human Rights, and Commingled Remains*  
The recent widespread investigation of human rights violations has attracted renewed interest in the recovery and investigation of "mass graves." These features may appear to represent unique scientific situations, requiring special methodologies; however, precedent in recovery techniques can obviously be found in the field of contemporary archaeology. A prehistoric Native American ossuary will serve as a conceptual model of how the implementation of appropriate contemporary archaeological methods can address multiple issues related to the commingling of human remains and depositional events within the burial feature; methods and analyses that are directly applicable to modern forensic settings, including human rights cases.

**Dissard, Laurent (University of California, Berkeley)**

[110] *The GAP Project and Archaeology in Turkish Kurdistan*

The construction of dams and destruction of archaeological sites by the GAP project in Turkish Kurdistan places archaeologists in front of many ethical questions. How has the rescued archaeological record (i.e., the Roman city of Zeugma) been used by the Turkish government to achieve political goals? What is the responsibility of the archaeologist in this appropriation? This paper will examine the position of different stakeholders ('local' Kurds, 'national' governments, 'global' environmental activists) involved in this overtly politicized environment. How can a more 'social' archaeology conscious of its responsibilities towards local communities and whose concerns go beyond preservation be reached?

**Dixon, W. Randall (LDS Church Archives) and Thomas Carter (University of Utah)**

[63] *Creating the Mormon City: Architecture and the Culture of Refinement in Early Salt Lake City, 1847-1849*

For Mormons in the Great Basin West, building the City of Zion meant turning ideas about what the heavenly city was supposed to be like into an actual place. A city had to be built that effectively externalized Mormon beliefs concerning the nature of earthly perfection. This paper uses the built environment of pre-railroad Salt Lake City (1847-1869) to explore Mormon conceptualizations of the City of Zion. What got built during this period is crucial in understanding both the structure of the Mormon city and the ideological system that brought it into being.

**Dobney, Keith [130] see Balasse, Marie**

**Dodd, Lynn (University of Southern California) [110] Discussant**

**Doelle, William (Desert Archaeology)**

[154] *Some Lifetime Effects of Gwinn Vivian's Mentorship*

The Arizona State Museum was full of opportunities in the early 1970s when cultural resource management was emerging as a new career option. I had the good fortune to work in the Cultural Resource Management Section - which Gwinn Vivian had oversight responsibility for - and to take classes from Gwinn as a graduate student. He also served as my dissertation chair. The foundations built in those early years have served me well. At many turning points Gwinn Vivian shaped my private-sector career. My involvement with Tohono O'odham ethnoarchaeology, the MX missile system, and archaeological preservation - all Gwinn's "fault."

**Donahoe, Robert [27] see Neeley, Michael**

**Dongoske, Kurt (ZCRE)**

[131] *Chee Dodge Pueblo: Examining Chacoan Period Community Development and Organization in the Gallup Basin*

During the Chacoan Period, a population increase occurred across the Anasazi region. In the Gallup Basin, a rise in population is reflected in the dramatic increase in archaeological site densities with large communities forming by the end of this period. Concurrently, people appeared to move into all available environmental niches within the Gallup Basin, including the most agriculturally marginal areas. Community development and organization within the Gallup Basin are examined from excavation data recovered from a six room pueblo north of Gallup. These data are then compared to temporally similar pithouse data from Borrego Pass.

**Doonan, William [66]** *see* Quilter, Jeffrey

**Dore, Christopher (Statistical Research) [90]** *Discussant*

**Dornan, Jennifer (University of California, Los Angeles)**

[86] *From Theory to Data: A Feminist Archaeology?*

As we explore the extent to which it is feasible to rely on a feminist approach to archaeological data, we struggle with issues that are being addressed across archaeology. The concurrent desire to utilize a particular framework while at the same time remaining faithful to our data creates a new self-reflexive tension between data and theory. In addition, we can question what it means to implement a "feminist perspective." After exploring some of these more theoretical questions, this paper will then examine these issues in the context of historical archaeological data from San Pedro, Belize.

**Douglas, John (University of Montana)**

[141] *The Prehistory of Northeast Sonora, Mexico: The Regional Significance of New Evidence*

Little archaeological research has been conducted in Northeast Sonora since the 1970s, but survey and archaeological data collected by the University of Montana and Centro Sonora suggests a need for reevaluation. Here, data from sites in the upper Bavispe Valley from A.D. 500 to 1500 are reviewed. These data are compared against the general northwest Mexico and southern U.S. Southwest pattern. Rather than the old model of a lagging 'frontier' area, northwest Sonora appears to participate fully in regional change. This model alters the placement of northeast Sonora in regional studies while raising new questions, which are briefly explored.

**Douglass, John (Statistical Research, Inc and UC Riverside) and Richard Ciolek-Torrello (Statistical Research)**

[162] *Overlooking the Wetlands: Recent Research at two Intermediate Period sites, West Los Angeles*

Recent excavation at LAN-63 and LAN-64, located on the West Bluffs property in West Los Angeles, offers new insight into occupation patterns of coastal and wetland inhabitants of the southern California Bight during the Intermediate Period. The location of these sites on the bluffs overlooking the Ballona wetlands created diverse environments for subsistence and production for the prehistoric inhabitants. The excavation of over 300 features at these two sites allows critical analysis of both previous and current work at Intermediate sites in the region.

**Douglass, John [134]** *see* Gonlin, Nancy

**Doutriaux, Miriam (University of California, Berkeley)**

[68] *An Archaeohistorical Investigation of Ethnicity in the Collagua Province, Peru*

One of the hallmarks of empires is the sociopolitical, cultural, and environmental diversity of their constituencies. In the Inka empire, preexisting differences within the imperial territory were often maintained and even intensified as imperial officials divided and consolidated the population into recognizable and manageable administrative units. In the Collagua province of southwestern Peru, colonial documents detail the existence of two ethnic groups and three administrative divisions. Our recent survey and excavations reveal continuity in portable artifact media across these divisions, but regional settlement data suggest discontinuities which partially coincide with the pre-Inkaic ethnic divisions referred to in the documentary record.

**Doutriaux, Miriam [66]** *see* Guerra Santander, Ericka

**Dowdall, Katherine M. (Caltrans) and Otis O. Parrish (University of California, Berkeley)**

[107] *Archaeology and Places with Sacred Narratives*

Previously, we developed a collaborative process that incorporated tribal understandings into

CRM archaeology through inclusivity, reciprocity, and mutual respect. Here we give an interpretation of the archaeology of the Kashaya landscape based on their traditional law of reciprocity as it applies to place-making. Villages, gathering areas, places where things happened while the world was being created, and places that need respect, all invoke narratives of identity and understanding; and these narratives shed light on the lives of Kashaya ancestors. Furthermore, by simultaneously protecting the archaeological record and sacred narratives, we believe our work is one example of post-colonial stewardship.

**Doyle, James [91]** *see Mongelluzzo, Ryan*

**Draut, Amy [141]** *see Fairley, Helen*

**Drennan, Robert D. (University of Pittsburgh)**

[55] *Tombs, Temples, and Jades: A Comparative View of Hongshan Social Organization*

The Hongshan culture is best known for jade sculpture, impressive burials, and large ceremonial structures, all taken to indicate complex social, political, and economic organization. Such remains are, at best, equivocal evidence about the nature and degree of complexity, but complementary kinds of archaeological information about Hongshan patterns of life are scarce. Comparison of spectacular Hongshan remains with those of regions where social organization is better known yields two products: it sets some limits on the range of plausible reconstructions of Hongshan society, polity, and economy, and it focuses attention on what other kinds of information are most urgently needed.

**Driskell, Boyce (University of Tennessee) and Sarah Sherwood (University of Tennessee)**

[151] *The Transition from Paleoindian to Archaic in the Middle Tennessee Valley*

Judging from the large numbers of Paleoindian sites found in the middle Tennessee Valley, this area of North Alabama was favored by Paleoindian peoples of the Southeast. Similarly, many early Archaic sites are known for this portion of the Tennessee Valley. While information potential of many of these sites is limited because of poor preservation, the Paleoindian and Archaic deposits investigated at Dust Cave are well preserved and laden with fragile organic remains. This paper reviews the extant evidence for subsistence and settlement strategies in this region and identifies changes during the transition from Paleoindian to Archaic lifeways.

**Dudgeon, John (Dept. of Anthropology, UH Manoa/IIRMES, CSULB) and Hector Neff (Dept. of Anthropology and IIRMES, CSULB)**

[25] *Determination of Multiple Element and Isotope Ratios in Biological Remains from Archaeological Sites Using Time-of-Flight (TOF) ICP-MS*

Laser ablation ICP-MS is becoming recognized as an effective tool for rapid elemental characterization of archaeological materials. Time-of-Flight technology expands the utility of LA-ICP-MS by permitting simultaneous measurement of isotope ratios together with multiple elements germane to materials sourcing, mobility, and dietary studies. Simultaneous measurement of element and isotope ratios offer increased precision over sequential sampling methods and is capable of resolving micro-spatial variation in many structures of archaeological interest. Here we present experimental details of a method designed to infer broad dietary composition in archaeological skeletal materials using isotope ratios in dental enamel.

**Duff, Andrew (Washington State)**

[131] *Chacoan Community Organization in the Southern Zuni Region*

During its heyday, groups within Chaco Canyon are seen to have exerted influence over much of the Plateau. Though the nature of influence remains uncertain, Zuni has long been implicated in Chacoan developments. I use settlement and artifact data from the Cox Ranch Pueblo community to explore the role of Chaco in a distant, contemporaneous great house community, arguing that local dynamics, more so than things Chacoan, were the central facts of daily life. Great house community data continue to confound simplistic views of Chaco, instead supporting the prevalence of syncretic organizational systems appropriating select Chacoan elements.

**Duff, Andrew [48]** *see Huntley, Deborah*; [69] *see Matthew, Landt*; [158] *see Nauman, Alissa L.*

**Dugan, Colleen A. [33]** *see Manzano, Bruce L.*

**Duke, Daron [137]** *see Gilreath, Amy*

**Duke, Daron G. (Far Western) and D. Craig Young (Far Western)**

[88] *The Complimentary Aspects of Basalt and Obsidian in Examining Great Basin Paleoarchaic Mobility*

Early Great Basin peoples were hooked on black volcanic rocks. But the rocks they chose so

interchangeably basalt and obsidian--possess distinct qualitative differences. Obsidian is amenable to the highly-curated mobile toolkits usually envisioned by archaeologists, while basalt technology is generally rudish and expedient. Obsidian is emphasized in Paleoarchaic mobility studies, but basalt has unrealized potential to inform us about the local, logistical priorities of people that pertain to the duration of their stays in individual basins. Basalt is uniquely suited to represent immediate technological needs, and together with obsidian, provides a balanced means of examining early residential priorities.

**Duke, John [28]** *see Cooper, H. Kory*

**Dumas, Ashley (University of Alabama), Jennifer Myer (University of Alabama), Brooke Persons (University of Alabama) and Amanda Regnier (University of Alabama)**

[143] *Welcome Back: Returning Culture to Archaeological Theory*

This paper represents the second portion of our critique of agency theory. Previously, we have noted a number of objectionable implications within the construct of agency theory, including the mischaracterization of culture, the suggestion that there is no patterning to history, and the reduction of all social change to a single prime mover. Here, we will elaborate on the relevance of theory drawn from cognitive anthropology to the interpretation of the archaeological record. We propose that social change and innovation can be explained through an approach that characterizes culture as a series of shared mental models held in the minds of individuals.

**Dumas, Ashley (University of Alabama) and Mary Spanos (University of Alabama)**

[143] *Textiles Used in Prehistoric Salt Production: Evidence from South Alabama*

Late Woodland and Mississippi period Indians often used textiles in the process of making the large ceramic salt pans in which brine was evaporated into salt. For this study, we examined textile impressions on sherds of salt pans from three salt production sites in southwest Alabama. Our analysis shows that there is a significant change in yarn and fabric types over time as people switched from using discarded textiles to constructing textiles specifically for the manufacture of salt pans. We propose that this change is evidence for intensified salt production in the region.

**Dunbar, James [106]** *see Thulman, David*

**Duncan, Neil A. [18]** *see Benfer, Jr, Robert A.*

**Dungan, Katherine (University of Michigan) and Christopher Roos (University of Arizona)**

[98] *Intervisibility and Invisibility: A Viewshed Analysis of Pithouse Period Sites in the Mogollon Rim Region*

Pithouse period sites in the Mogollon Rim region tend to be located on ridges or hilltops. One advantage such locations offer is a view of the surrounding landscape and human activity across that landscape. This paper analyzes viewshed and intervisibility data for 34 pithouse sites on the Sitgreaves National Forest. Although small groups of intervisible sites are present, the majority of site locations offer neither exceptionally large viewsheds nor intervisibility with other sites. We explore the reasons why settlement invisibility may have been more important during this period of relatively high residential mobility in the Rim region.

**Dunn, Stacey [128]** *see Heaton, Ashley*

**Dunnell, Robert C. (Mississippi State University)**

[80] *Introduction*

Over the past 20 years it has come to be appreciated widely that evolutionary theory can explain what have been traditionally thought of as cultural phenomena. This generalization of the biological theory, while based on the simple realization that cultural phenomena are transmitted phenomena that affect the fitness of the transmitters, is greatly complicated in application by the investigator's own cultural system. The history of "waste" or "bet-hedging" in archaeology serves to objectify these problems that affect both biological and archaeological applications. There are no quick fixes when you "have met the enemy and he is us."

**Dussubieux, Laure [3]** *see Burgess, Laurie*

**Duvall, Isabelle (Université du Québec à Chicoutimi)**

[109] *Mistassini-Albanel Quartzite: Chemical Characterization of Raw Materials in Artefactual Materials*

The Mistassini-Albanel quartzite is found on archaeological sites in Québec. Visual identification



of the quartzite is problematical and has fostered investigation into the chemical characterization of the quartzite. A geological survey was performed to sample the variability of the quartzite at its source. The geological samples were chemically analyzed using INAA to "fingerprint" the source. Quartzite artifacts were collected from 14 sites in Québec and these artifacts were also chemically analyzed using INAA. The data was statically analyzed to determine chemical similarity of artifacts to the source. Results elucidate the prehistoric distribution and utilization of quartzite in Québec.

**Duwe, Samuel (University of Arizona)**

[45] *Communities of Practice and Networks of Exchange: Glaze Paint Analyses of Pueblo IV Ceramics in the Silver Creek Area, Arizona*

Previous analyses of Pueblo IV glaze painted ceramics in the Silver Creek area of east-central Arizona have indicated both aggregation and migration affecting the size and social composition of communities. This paper will examine the chemical composition of the glaze pigments themselves by laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS). These data can be used to understand provenance of the pigment, and can be used at an intra-site scale to delineate specific paint recipes inherent to ceramic traditions, or potting communities at a possible household level. Questions of exchange and communities of practice will be addressed, specifically in understanding networks of prehistoric knowledge transmission.

**Duwe, Samuel [48]** see *Minc, Leah*; [98] see *Fertelmes, Craig*

**Dyer-Keating, Emily (University of Idaho)**

[11] *Consumption, Collection, and Connection through Bottles: A Case Study from Rural Idaho*

This past year the Alfred W. Bower's Laboratory of Anthropology at the University of Idaho gained access to a unique assemblage of over 1,000 complete bottles. This assemblage includes pharmaceutical, alcohol, food, fresh beverage, toiletries, and household cleaner bottles dating to the late 19th and 20th centuries. The collection comes from the White Spring Ranch just north of Genesee Idaho where they were amassed by Henry Lorang. Some of the bottles in this assemblage are known to be collected by Henry but most were used by him and his family.

**Eaton, Marietta (U.S. Bureau of Land Management) [34]** *Discussant*

**Ebbert, Jennifer Strong (Historic Mount Vernon)**

[3] *To Erect a Large Distillery: Reconstructing George Washington's Whiskey Distillery*

In 1797, George Washington embarked on yet another business enterprise, distilling whiskey. The distillery built for this endeavor was monumental in size, profit and production. Mount Vernon's Archaeology Department has undertaken its excavation with the goal of reconstructing the building and interpreting the 18th century distilling process. A wealth of primary documents, period industry manuals and intact archaeological deposits has informed and helped shape our understanding of the original building. This poster will display details of the archaeology, historical research and reconstruction efforts. Also discussed will be the challenges of constructing and interpreting an 18th century distillery in today's world.

**Ebert, Virginia (University of Pennsylvania)**

[86] *Transformations of Identity in the Inka State: A Consideration of Antecedents to the Institution of "Chosen Women"*

The short-lived Inka state manifested an impressive array of intertwined social, economic, political and religious institutions that were likely shaped by antecedent systems. Among these, the aqllakuna, or "chosen women," epitomized imperial power and control. Weaving cloth for the state and playing important roles in the state religion, the chosen women were housed in convent-like structures called aqllawasi, placed throughout the Inka realm. Archaeological, ethnohistorical and ethnographic data are examined to search for potential antecedents to the social institution and the structures to contribute to a fuller, more contextualized depiction of the aqllakuna in particular and Inka society in general.

**Eckert, Suzanne (Texas A&M)**

[15] *Understanding the Dynamics of Segregation and Incorporation at Pottery Mound*

I use ceramic data to examine the tensions of segregation and incorporation that existed as immigrants and indigenous groups at Pottery Mound negotiated living together within the same village. I argue that residents negotiated various social dynamics, including redefining their group identity. Immigrant identity changed to allow for both an emphasis on migration history in some social contexts, as well as the ability to embrace a village-wide identity in other contexts. This

redefining of identity reflects the complex dynamics of incorporation and segregation that immigrants throughout the Pueblo Southwest would have negotiated in different ways, depending on time and place.

**Eckert, Suzanne [69]** *see Kulow, Stephanie*; **[97]** *see Kane, Lowell*

**Eckman, Jason (Alpine Archaeological Consultants, Inc.)**

**[105]** *Anticipated Site Reoccupation by Archaic Groups in Southwestern Wyoming*

Prehistoric groups tended to invest more labor into structure and feature construction and to formalize the spatial organization of site activities if they anticipated lengthy site occupation. It is possible, however, that similar investments might have occurred when sites were planned for short-term, but frequently repeated occupations. Differentiating the differences in the two types of anticipated occupation poses a challenge for archaeologists. Data from archaic sites in southwestern Wyoming will be examined to determine whether such differentiation is possible.

**Edwards, Josh (SWCA Environmental Consultants) and Michael O'Hara (SWCA Environmental Consultants)**

**[69]** *Archaeological Investigations near Canyon de Chelly*

SWCA recently completed excavations at four sites along Navajo Route 27 (N27) between Chinle and Nazlini, Arizona. At the base of the Defiance Plateau, N27 runs along the length of Beautiful Valley at the southern end of the Chinle Valley. Excavations were conducted at four sites occupied from the Early Agricultural period through historic Diné (Navajo) times. SWCA excavated a total of 88 cultural features, including 15 structures, 3 middens, and 8 inhumations. These excavations have provided information on the transition to settled village life in the Chinle Valley and the origins of Diné occupation of the area.

**Edwards, Susan (Desert Research Institute)**

**[127]** *The Wallace Station Redemption: A Passport in Time Project*

In 2004, Nevada Archaeological Association members from the Desert Research Institute, the USFS Humboldt-Toiyabe National Forest, and the BLM Battle Mountain District led a Passport in Time project that attracted volunteers from California to Canada. Professional archaeologists and avocationalists joined forces to excavate a 19th Century stage station near Austin, Nevada. With diverse personal and professional backgrounds, each volunteer brought unique skills and experiences to the project. More importantly, they brought enthusiasm and passion, qualities sometimes lacking in cultural resource management. The volunteers' dedication contributed greatly to the success of the Wallace Station project and helped "redeem the soul" of a jaded professional archaeologist.

**Eerkens, Jelmer W. (University of California, Davis)**

**[46]** *Gas Chromatography Mass Spectrometry (GC/MS) Analysis of Fatty Acids in Ancient Potsherds*

Organic residue analysis is becoming increasingly common in archaeological studies. This paper evaluates the discriminatory power of fatty acid analysis by gas chromatography/mass spectrometry (GC/MS) to identify the types of foods that were cooked in ancient pots. A case study from the western Great Basin of North America is examined.

**Eerkens, Jelmer W. (University of California, Davis) [21]** *Discussant*; **[26]** *see Ferguson, Jeffrey*

**Ehlers, Christine (Boston University)**

**[42]** *Interpretations of Style: The Bronzeworking Industry and Technological Organization in Urartu*

This paper presents the metallographic and compositional characterization of bronzework from the site of Van-Ayanis in eastern Turkey, and the implications these findings have on the conclusions drawn about how this industry was organized and managed within the Urartian Kingdom. The results of analyses have yielded a patterning in the production techniques and technological approach of this industry - its "Technological Style" - that can be used in constructing our understanding of the nature and structure of Urartu and the sector that produced some of its most distinctive and identifiable material culture.

**Eigeland, Lotte (University of Oslo)**

**[150]** *Pride and Prejudice: Non-Flint Raw Material Procurement in Mesolithic Southeastern Norway*

The success of a reduction strategy depends heavily on the type and quality of the raw material

used, therefore, raw material procurement is a central concern in lithic reduction analysis. The assessment of technological skill and the recognition of lithic production concepts is often based on refitting and experimentation carried out on high quality flint. The utilization of seemingly inferior non-flint raw material types in the European Mesolithic is a neglected area of investigation. The question central to the present research is: what is the nature of alternative procurement strategies with regard to raw material quality in flint-scarce regions? Are lithic analysts who ignore utilized non-flint raw material missing out on important information and fail to recognize alternative procurement strategies? The results of a lithic reduction analysis of several Mesolithic assemblages from south-eastern Norwegian upland and coastal sites suggest that non-flint material was not explored merely due to necessity serving as a deficient replacement for flint, but reflect a preferential, socially motivated selection.

**Einingers, Susan [22]** *see Memory, Melissa*

**Eiselt, B. Sunday [48]** *see Darling, J. Andrew*

**Ek, Jerry [50]** *see Novic, Juliana*

**Eldredge, Niles (American Museum of Natural History) [121]** *Discussant*

**Elkin, Dolores [130]** *see Mondini, Mariana*

**Ellick, Carol (SRI Foundation)**

[113] *The SAA PEC: 15 Years of Contributions to the Profession of Archaeology*

The past fifteen years have witnessed a change in attitude towards the inclusion of public outreach and education. This change is evidenced through the exponential increase in public oriented products sponsored through both cultural resource management and academia. Through time, the laws have remained the same. Public interest has remained a constant. The change has come from within the profession, from the agency managers, professors and consultants. Over the past fifteen years, more than 200 individuals have served on the SAA's largest committee. In this presentation, follow history through the individuals who have made change happen.

**Elliott, Michael L. [69]** *see Kulisheck, Jeremy*

**Elliott, Michelle (Arizona State University), Paula Turkon (Arizona State University), Julien Riel-Salvatore (Arizona State University) and Ben A. Nelson (Arizona State University)**

[50] *Tools of the Trade? New Perspectives on Agave Processing in the Malpaso Valley, AD 500-900*

Macrobotanical analyses demonstrate that the prehispanic inhabitants of the Malpaso Valley utilized Agave sp., although the organization of its production remains unclear. Other researchers have established a link between Mesoamerican agave processing and "strangulated" scrapers. We present a morphological analysis of such tools and examine their relative frequency in three sites representing a range of social contexts in the Malpaso Valley. Considered also in the valley's larger paleoecological context, these lines of evidence yield new insights about agave production at various levels of the valley's social hierarchy.

**Elliott, Rita**

[96] *Archaeologists' Guide to the Galaxy - A Teaching Kit*

Come discover how middle school students can explore the mysteries of our galaxy - including scientific, mathematic, artistic, logic, and language - through exciting archaeological activities. The kit includes hands-on classroom activities and games tied to the Criterion-Referenced Competency Tests (CRCT) domains that many educators are required to teach. This teaching kit is under final construction by a joint committee of the Georgia Council of Professional Archaeologists and The Society for Georgia Archaeology. Extensive educator and student evaluations are currently underway. We invite you to visit and learn from our galactic challenges and successes.

**Ellison, Leigh Anne (Northern Arizona University), Anna Novotny (University of New Mexico) and Charles Webber (Gila River Project)**

[129] *Making It on the Margins: Rural Craft Production in the Late Classic Middle Chamelecon and Lower Cacaupala Valleys, Northwestern Honduras*

Excavations recently completed at six hamlets in the Middle Chamelecon and Lower Cacaupala drainages revealed variable participation of households in fashioning ceramic vessels and figurines during the Late Classic (AD 600-800). Evidence for these crafts is presented along with an assessment of manufacturing scales and a model for how specialized production figured in the

region's ancient political economy. The study's implications for the analysis of complex political formations and dynamic rural-urban relations are also considered.

**Ellison, Leigh Anne [129]** *see McFarlane, William; see Rogoff, David*

**Elson, Mark (Desert Archaeology, Inc.)**

[139] *Pithouses in the Pines, Early Sinagua Settlement in Northern Arizona*

This paper examines early pithouse settlements in the northern Sinagua area around Flagstaff, Arizona. Because they are deeply buried or covered by Sunset Crater cinders, sites from this period are poorly known, having been found fortuitously, either through construction or when excavating later components. This indicates that early pithouse sites are underrepresented in the archaeological record. Archaeological evidence also suggests that village formation here may be later, and the sites smaller, than in surrounding regions, due in part to the harshness of the climate, but also due to differences in social organization and subsistence and settlement systems.

**Elson, Mark D. [141]** *see Ort, Michael H.*

**Elster, Ernestine S. (The Cotsen Institute of Archaeology, UCLA)**

[114] *A Case Study for Culture Contact in a Prehistoric European Setting: Evidence and Implications for Contact Regionally and Extra-regionally from Northeast Greece*

Archaeologists have used "comparanda" frequently to infer a link--culture contact of some kind--from one site to another and from one region to the "outside." The data come from artifact sets such as pottery, figurines, etc. or on the evidence of trade based on identification of raw materials not native to the region. The latter might be flint from Bulgaria transformed into tools in the assemblage of a Greek site indicating trade/exchange and certainly culture contact. Such contact will be examined based on the data from Sitagroi, a middle neolithic to early bronze age settlement mound (ca 5500-2300 BC) in northeast Greece, used as the case study.

**Emerson, Thomas (University of Illinois) and Lawrence Conrad (Western Illinois University)**

[67] *Shamans on the Edge*

The onset of Mississippian lifeways about A.D. 1000 are generally believed to have led to the institutionalization of many political and religious practices. In massive centers like Cahokia I have demonstrated that distinctive priestly cults are recognizable in the specialized temple architecture and a rich religious iconography. However, in the small village chiefdoms that lie in Cahokia's northern hinterland, priestly cults are absent or poorly documented. Instead shamanistic practices continue to play a pervasive role in local religious and political activities, these activities can be observed in evidence from mortuary and village excavations as well as from iconography and arts.

**Emery, Kitty F. (FLMNH, UF)**

[73] *Animal Use Economics in the Late Classic Maya Polity of Motul de San Jose*

Animals are natural resources - acquired, stored, exchanged, modified, and used - and as such can provide clues to domestic economies. Faunal remains and organic residues from households at the Classic Maya sites of Motul de San Jose polity (including the sites of Buena Vista and Trinidad among others) are used to reconstruct a picture of the economics of ancient Maya animal-use practices. Taxonomy, skeletal element distributions, age characteristics, and specimen modification details are compared between households and sites to reveal community and household use patterns.

**Emery, Kitty [73]** *see Haldeman, Benjamin*

**Endacott, Neal (Washington State University) and Robert E. Ackerman (Washington State University)**

[28] *Faunal Remains from Lime Hills Cave, SW Alaska*

Most faunal research from the few excavated caves in eastern Beringia address questions of large mammal taphonomy or the timing of human entry into the New World. Temporal changes in species composition are an under-utilized source of paleoenvironmental information throughout the arctic. This study presents taxonomic abundances for the entire Lime Hills Cave faunal assemblage. Shifts in relative percentages of indicator species are noted correlating with major vegetation changes from the late Pleistocene through the Holocene as well as those associated with cultural occupations.

**Engstrom, Christin [162]** *see Morgenstein, Maury*

**Enloe, James (University of Iowa)**

[62] *Faunal exploitation at the Pleistocene/Holocene boundary at Pincevent, France*

Occupation of several levels of Pincevent by Magdalenians during the Tardiglacial permits us to observe changes in adaptation across the Pleistocene/Holocene boundary. Most notable was a shift from almost exclusive hunting of reindeer to relatively equal proportions of horse and reindeer. Examination of patterns of carcass exploitation and season of occupation contributes to an understanding of the nature of this evolutionary change within the same cultural group at the same site. These patterns of hunting and carcass treatment can be linked to changes in technological and social behavior.

**Enrile, Margaret Brown (University of Illinois)**

[128] *Preliminary Data from the Archaeological Complex of Acaray, a Fortified Settlement in the Huaura Valley, Peru*

Little is known of the nature of interactions between late Prehispanic societies on the near north coast of Peru. This paper reviews spatial and surface data collected at the archaeological complex of Acaray in the Huaura Valley that suggest there was conflict between groups in the region during the Late Intermediate Period (ca. A.D. 1000-1470). Recent investigations at Acaray identified architectural features and surface materials that indicate a clear defensive nature to the site and present evidence of warfare. I argue Acaray was the locus of violent interactions between as yet undetermined groups, and briefly explore avenues for future research.

**Eren, Metin (Harvard University), Brian Redmond (Cleveland Museum of Natural History) and Mark Kollecker (Cleveland Museum of Natural History)**

[106] *More Than Just "Trianguloid:" Understanding Paleoindian Scraper Diversity and Typology at the PaleoCrossing Site*

Research into North American Paleoindian lithic technologies tends to focus on projectile point analysis, often using projectile point diversity to determine geographical and/or temporal boundaries. Larger components of Paleoindian lithic assemblages, such as scrapers, often get divided into large, unwieldy categories such as 'unifacial,' 'bifacial,' or 'trianguloid.' The results of this paper demonstrate the large diversity of Paleoindian scraper types from the PaleoCrossing site by constructing an original Paleoindian scraper typology. This study introduces some interesting and possibly diagnostic Paleoindian scraper types and application of this typology to raw material usage has far-reaching implications for the occupational status of PaleoCrossing.

**Erlandson, Jon (University of Oregon) and Torben Rick (Southern Methodist University)**

[119] *Archaeology, Marine Ecology, and Human Impacts on Marine Environments*

Contrary to long-standing anthropological theory, archaeological data now show that relatively intensive coastal adaptations developed much earlier than once believed--by at least 125,000 years ago. With our oceans and marine fisheries in a state of crisis, coastal archaeological sites contain a wealth of data on historical ecology and human impacts in marine ecosystems. In this paper, we discuss: 1) linkages between archaeology, marine ecology, and fisheries management; 2) some methodological issues in comparing archaeological, historical, and ecological data; and 3) various approaches to understanding the history of human impacts to marine and other aquatic environments.

**Erlandson, Jon [119]** *see Rick, Torben;* [19] *see Braje, Todd J.*

**Ernenwein, Eileen [25]** *see Hargrave, Michael;* [27] *see Kvamme, Kenneth L.;* *see Kvamme, Jo Ann Christein*

**Esh, Kelley (University of Hawaii Manoa)**

[57] *Human Impacts on Hawaiian Bird Populations: Analysis of Avifauna from Nu'alolo Kai, Kaua'i*

Archaeological research in Polynesia suggests that island colonizers had significant impacts on native bird populations. While fossil evidence solidly associates human colonization of Pacific Islands with avian declines, the reasons for extinctions and extirpations are debated. The use of modeling from evolutionary ecology provides testable hypotheses for considering prehistoric resource depression and intensification. This paper will focus on the analysis of modified and unmodified bird bone from the Nu'alolo Kai site on the Na Pali coast of Kaua'i.

**Eskenazi, Suzanne (HRA, Inc. Conservation Archaeology) and Heidi Roberts (HRA, Inc. Conservation Archaeology)**

[94] *Sand Dunes and Site Structure: A Comparison of Archaic and Southern Paiute Campsites in Southwestern Utah*

Excavations at three sites in the Coral Canyon project area in southwestern Utah revealed Middle and Late Archaic and Southern Paiute period sites. The patterns of site structure and artifact assemblages show a rise in organization and complexity in later time periods. Sites from the Middle Archaic (42Ws1219, 1221-early component) contain no habitation structures or ground stone artifacts. Conversely, the more complex campsites from the Late Archaic and Southern Paiute periods (42Ws1221-later component, 3636) contain both habitation structures and ground stone. Comparative analysis indicates that this pattern is observable elsewhere in the region, specifically at Sand Hollow.

**Espinosa, Cesar (Southern Illinois University)**

[112] *Preclassic Ritual Cave Termination Practices at the Site of Sabalam, Southeastern Peten*

The 2004 California State University, Los Angeles Archaeological Project investigated a Preclassic rural settlement in southeastern Peten called Sabalam. The complex of five mounds each contained one or more caves. All of the caves investigated appear to have had their entrances blocked in antiquity and a number of still blocked caves were noted but not investigated. The project has interpreted this pattern, which was also noted at the nearby site of Balam Na, as reflecting ritual cave termination. Our preliminary assessment is that Sabalam was abandoned after this Late Preclassic event.

**Estrada Belli, Francisco (Vanderbilt University), Jeremy Bauer (Vanderbilt University), Jennifer Foley (Vanderbilt University), Nina Neivens (Tulane University) and Alex Tokovinine (Harvard University)**

[12] *Cival, La Sufricaya and Holmul: Lowland Maya Settlement and Political History in the Holmul Region of Peten, Guatemala*

Multi-scalar regional research in the Holmul region aided by GIS/GPS settlement mapping is shedding new light on the birth and transformations of a Maya kingdom throughout the cycles of Maya Preclassic and Classic civilizations. An improved survey methodology includes the recent NASA AIRSAR radar mapping of the entire region in high detail providing a wealth of data to complement ground mapping and GPS reconnaissance. The available long-term regional dataset strongly suggests that the polity's internal power relations and ideology mutated as the balance of power shifted in the alliance and trade networks among Lowland Maya kingdoms and the outside world.

**Etnier, Michael A. [26] see Cooper, Charlotte**

**Evans, Damian (University of Sydney), Roland Fletcher (University of Sydney), Ian Tapley (Horizon Geoscience Consulting) and Tony Milne (Horizon Geoscience Consulting)**

[144] *Applications of Radar Remote Sensing to Settlement Sites in Cambodia: Past, Present and Future*

Synthetic aperture radar (SAR) has been used as an archaeological tool for more than ten years at Angkor, and plans are currently underway for a new season of overflights at this site and others in Cambodia. This presentation will detail the nature of the archaeological assemblage revealed by radar remote sensing at Angkor and consider the possible benefits of SAR for multidisciplinary research programmes at other sites. It will also examine recent applications of SAR at settlements in other contexts (particularly in Thailand, Indonesia and the Americas) and analyse the implications of those results for Khmer settlement archaeology.

**Evans-Janke, Leah (University of Idaho)**

[11] *The Women behind the Power: The Lives and Times of the Idaho Power Substation Operators of Silver City, Idaho*

Between 1905 and 1940 the mining town of Silver City, Idaho came of age. As many miners and their families left to seek more reliable sources of income, or another last chance at a great boom, those that remained behind brought Silver City into the era of fully industrialized mining. This paper will analyze the transition of this mining community through the ceramics and glass artifacts left by the four families that maintained the Idaho Power Substation from its inception to its final demise.

**Everett, Mark [142] see Dickson, D. Bruce**

**Everson, Gloria (Lyon College) and Lyle Jennings (Loyola University)**

[152] *Theoretical Perspectives on Space and Place: Construction of Meaning in Mesoamerica*  
Appropriate spatial analysis requires an understanding of how a space becoming a place. In what ways do people attach meaning to and organize space - or convert space into place? The way we approach these questions affects and is affected by interpretation. Past people's sense of place is perpetuated in the material remains of their culture. Archaeological settlement data from La Milpa, Belize, supports the theoretical idea that the Maya actively participated, not only in converting space into place, but converting mythical space into a coherent physical place by imposing a map of their cosmos onto the landscape surrounding this center.

**Ezzo, Joseph (SWCA)**

[35] *Sacred Landscapes along the Lower Colorado River*

The built environment along the Lower Colorado River reflects aspects of the cosmological and socioeconomic lives of Yuman-speaking peoples. Many aspects of the natural landscape - hilltops, ridges, unusual geological features (such as Pilot Knob), and even the waters of the Colorado River itself - are imbued with symbolic and mythological meaning. Together the built environment and natural landscape form a complex reflection of the many ways that Yuman-speaking peoples interacted with the world around them. Based on archaeological survey data and ethnographic studies, this paper highlights some of those aspects as they pertain to traditional rituals such as the keruk (mourning) ceremony and to elements myths such as those relating to the creation of the world.

**Fairley, Helen (US Geological Survey), Amy Draut (US Geological Survey), David Rubin (US Geological Survey), Ted Melis (US Geological Survey) and Lisa Leap (National Park Service)**

[141] *The Role of Aeolian Sediment in the Formation and Preservation of Archaeological Sites: Collaborative Geo-archaeological Research in Grand Canyon, Arizona*

Prior to construction of Glen Canyon Dam, aeolian processes played a significant role in the formation and preservation of archaeological sites along the Colorado River in Grand Canyon. With dam emplacement, the downstream sand supply was reduced more than 90%. The diminished sand supply, in conjunction with other dam-operation effects, appears to be contributing to erosion of archaeological sites in the river corridor. USGS scientists are researching relationships between pre-dam site formation process, sand supply, and the role of aeolian processes in stabilizing archaeological sites, with the intent of developing new management strategies for maximizing site preservation under post-dam conditions.

**Falabella, Fernanda [49] see Tykot, Robert****Falkner, Michael (Idaho State University), Andrew Williamson (Sagebrush Consultants) and Herbert Maschner (Idaho State University)**

[71] *A Regional Lithic Chronology for the Western Alaska Peninsula and Eastern Aleutian Islands*

The analysis of thousands of lithic artifacts from dozens of components spanning 4000 years on the Western Alaska Peninsula has resulted in a detailed lithic typology. At least seven time-specific types have been identified and are now used as regional chronological markers. As assemblages, these artifacts demonstrate a long history of complex hunter-gatherers with highly curated tool kits and numerous specialized tools. This paper will describe these assemblages and place them in a broader regional settlement and economic context.

**Fancher, Jason (Washington State University)**

[140] *Identifying Communal Small Mammal Procurement in the Archaeological Record: An Ethnoarchaeological Analysis of Duiker Element Representation among Contemporary Aka Foragers*

The difficulty of obtaining direct evidence of communal small prey hunting in the archaeological record is well documented, as is the virtue of exploring multiple independent lines of evidence. This paper is an analysis of a faunal assemblage produced by contemporary foragers in the village of Ndele, Central African Republic. These duiker bones, and the detailed contextual information that accompanies them, provide an excellent opportunity to further examine the relationship between cooperative hunting, forager/farmer exchange, the resulting patterns of skeletal representation, and potential applications of body part analyses toward identifying communal small mammal procurement in the archaeological record.

**Fang, Hui [46]** *see Lanehart, Rheta E.*

**Fanning, Patricia (Macquarie University, Sydney, Australia) [84]** *Discussant*

**Farin, Gerald [94]** *see Simon, Arleyn*

**Farnum, Julie (Montclair State University), Ekaterina Pechenkina (CUNY - Queens College), Theodore DeSantis (Montclair State University) and Robert Benfer (University of Missouri-Columbia)**

[18] *Preceramic Household Organization and Origins of Social Inequality on the North and Central Coasts of Peru*

Trends in household organization inferred from type and construction of dwellings, mortuary patterns, and corresponding demographics and health from Preceramic sites including Paloma, Chilca I, and Huaca Prieta indicate increasing inequality over time on the north and central coasts of Peru. Examination of burials interred under houses indicates dramatic changes in composition and demographics over time, with male-centered burials increasing at Paloma and more juvenile and young adults found in later occupations at Huaca Prieta. Household or lineage size varies widely and reflects increased social inequality in the Preceramic.

**Faugere, Brigitte (University of Paris 1) and Véronique Darras (CEMCA y CNRS)**

[149] *Space Management and Territory in the Chupicuaro Region (Guanajuato, Mexico) During the Late Formative Period*

During the Late Formative period, the Chupicuaro region in southeastern Guanajuato was inhabited by abundant agrarian populations who exploited the varied natural environment of the Lerma Valley. Recent surveys in portions of the main valley, and in smaller valleys of Lerma's tributaries, allow us to study for the first time Chupicuaro settlement patterns. Several categories of sites, from small hamlets to big villages with monumental architecture, can be identified. These sites constitute a continual network of human occupation, fitting each characteristic of the local landscape. The Chupicuaro settlement pattern will be compared with contemporaneous examples from Central and western Mexico.

**Faugere, Brigitte [149]** *see Darras, Véronique*

**Faust, Kata (University of California, Riverside)**

[86] *Exploring Gender and Ideology through Pre-Hispanic Huastec Sculpture*

Changes in socio-political organization have consequences for identity, gender, and kinship relations. These shifts are underwritten by concurrent ideological transformations, which are reflected in, and driven by, expressive culture. Analyses of public art with religious and political connotations that combine feminist perspectives with other theoretical frameworks enhance understanding of Pre-Hispanic Mesoamerican sociopolitical and ideological complexes. This paper explores the nature of public and ritualized conceptions of gender in the Huasteca during the Late Classic and Postclassic periods by examining the geographical and temporal distribution of anthropomorphic Huastec sculptures through intermeshed viewpoints of gender, identity, performance, and politics.

**Feathers, James (University of Washington), Jack Johnson (University of Washington) and Silvia Kembel (University of Pittsburgh)**

[49] *Luminescence Dating of Monumental Architecture*

Dating construction events of prehistoric monumental architecture has long presented a challenge to archaeologists. By dating the last exposure to daylight luminescence provides a way to obtain dates from the architectural material directly. Technical problems in obtaining such dates are discussed, using as an example the monumental temple at Chavin de Huantar in Peru.

**Feathers, James [160]** *see Johnson, Jack; [160]* *see Kembel, Silvia Rodriguez*

**Fedick, Scott (University of California, Riverside) [73]** *Discussant; [12]* *see Glover, Jeffrey*

**Fedor, Joseph A. [33]** *see Manzano, Bruce L.*

**Femiani, John [94]** *see Simon, Arleyn*

**Fennell, Christopher (University of Illinois)**

[142] *Archaeological and Ethnohistorical Evidence of BaKongo Diasporas in the Caribbean Region*

This project analyzes the past creation and use of material expressions of core symbols within



Diasporas of BaKongo and Yoruba cultural beliefs in regions affected by the trans-Atlantic slave trade. Utilizing theories concerning symbolic expression, formation and maintenance of social group identities, and the role of individual innovation, I examine a divergence in the way these creative processes played out at sites in North America, the Caribbean, and South America. This paper focuses on archaeological and ethnohistorical evidence concerning diverse social groups in Cuba, Jamaica, and the Bahamas during the eighteenth and nineteenth centuries in exploring these divergent cultural developments.

**Ferg, Alan (Arizona State Museum)**

[63] *Archaeological Research at the Little Colorado Mormon Colonies, Arizona Territory*

In the winter of 1876, LDS President Brigham Young called for missionaries to colonize the Little Colorado River valley in northern Arizona. By spring, the settlements of Joseph City and nearby Obed, and Brigham City and Sunset near Winslow, had been established, along with a lime kiln 20 miles away at Sunset Pass, and a sawmill and dairy 45 miles away at Mormon Lake. Limited archaeological research has been conducted sporadically at each of these sites since 1973, with significant excavations at Brigham City and Obed between 1991 and 1997, helping confirm and expand upon historical accounts left by the colonists.

**Ferguson, Ann [36]** see Davis, Mary Anne

**Ferguson, Jeffrey (University of Colorado, Boulder), Jelmer Eerkens (University of California, Davis), Michael Glascock (Missouri University Research Reactor) and Craig Skinner (Northwest Research Obsidian Studies Laboratory)**

[26] *INAA Examination of Flake Size Bias in XRF Studies*

Most obsidian sourcing studies using only XRF systematically ignore smaller artifacts that often reveal different source profiles than the artifacts meeting the minimum size requirements for accurate XRF. We show that bifacial assemblages often reveal different source distributions than large debitage from the same context, and the sources of small debitage most closely resemble the distribution for the bifaces. Using data from three regions in eastern California and central Oregon we have demonstrated the need to supplement XRF studies with INAA studies of the smallest recovered obsidian artifacts in order to gain an accurate understanding of obsidian procurement patterns.

**Ferguson, T. J. (Anthropological Research, LLC), Barbara Mills (University of Arizona) and John Welch (White Mountain Apache Tribe)**

[98] *Introduction: Research and Collaboration by the Silver Creek Archaeological Research Project-University of Arizona Archaeological Field School*

Over the past 12 years, the Silver Creek Archaeological Research Project (SCARP) has collaborated with the White Mountain Apache Tribe and the U.S. Forest Service on common goals relating to archaeological research and management in the Mogollon Rim area. This has resulted in excavation of sites on the Forest, survey above and below the Rim, and a number of heritage management projects for the Tribe. An overarching research theme is the movement of people into and through the area. This paper provides an overview of the project and introduces the theme of boundary permeability to contextualize the symposium papers.

**Ferguson, T. J. (Anthropological Research, LLC) [74] Discussant; [39]** see Mills, Barbara; [98] see Sergeyeva, Marina

**Fernández, Pablo [156]** see Scheinsohn, Vivian

**Ferring, C. Reid [62]** see Adler, Daniel

**Fertelmes, Craig (University of Arizona) and Samuel Duwe (University of Arizona)**

[98] *The Great Kiva Community at Cline Point in Regional Perspective*

Recent research by the Silver Creek Archaeological Research Project suggests that until historic times the Mogollon Rim in east-central Arizona has been a region distinguished by obscure and inconsistent sociopolitical boundaries. As one of their objectives, SCARP excavated and analyzed material from Cline Point, a uniquely positioned Great Kiva site to identify and better understand the region's social relationships during the eleventh century. This paper compares the occupational history and ceramic technology at Cline Point with other great kiva sites to explore the social dynamics of the region during the Pueblo II-III transitional period.

**Field, David (English Heritage)**

[109] *The Use of Quartz in the Neolithic and Early Bronze Age of Britain and Northwest Europe*  
 Use of quartz in the Neolithic and Early Bronze Age of Britain and northwest Europe has been little studied. The material was used both for tools and in monument construction and its visual qualities may have ensured that it was perceived to have symbolic importance. This contribution assesses the available evidence for the use of quartz in northwest Europe and relates it to potential rock sources.

**Field, Julie S. (Leverhulme Centre for Human Evolutionary Studies)**

[80] *Evolutionary Perspectives on Climate Trends and ENSO-related Disturbances in Southwestern Pacific Prehistory*

The analysis of historic and modern climate data indicate that the Southwestern Pacific experiences a wide variety of weather patterns. The extent to which these trends were unpredictable in prehistory is assessed in regards to the requirements of evolutionary bet-hedging models, and compared to particular strategies of agricultural production, exchange, and raiding, known from the islands of Vanuatu, Fiji, Tonga, and Samoa. The results suggest a division in strategies of cooperation and competition between these archipelagoes that is linked to agricultural harvest variance and the frequency of severe ENSO-related disturbances.

**Field, Julie [4]** see *Cochrane, Ethan*

**Fifield, Terence [137]** see *Poetschat, George*

**Figuti, Levy (MAE-University of São Paulo) and Paulo DeBlasis (University of São Paulo)**

[30] *The Land Snail and the Oyster: Early Holocene Evidence for the Peopling of the Brazilian Coast*

Sambaqui (shellmound) sites dating from the middle Holocene on are very widespread throughout southern Brazilian coast. Fresh data from riverine sambaquis located 40 miles away from present seashore and composed mainly of land snails, indicate inland occupation from the coast since early Holocene (9250yBP). Faunal and technological remains, as well as burial patterns, have similar cultural characteristics to the later and bigger coastal shellmounds. It makes it very plausible the human presence at the Brazilian coast in Late Pleistocene, and the possibility of a paleoseashore corridor for the peopling of eastern South America.

**Filean, Erik (University of Iowa) and Alicia Trimble (University of Iowa)**

[100] *Centurions, Chiefs, Cows, and Clientage: Informal Economic Strategies and Romano-Batavian Imperial Integration*

When stratification on the periphery of an imperial state is significantly less pronounced than at the core, informal economic and political relationships can be critical in creating and maintaining core-periphery integration. In this paper, faunal data illuminating local animal husbandry practices and exchange of animal products form the basis for a consideration of informally constituted patron-client relationships linking Roman elites, Batavian chiefly elites, and Batavian commoners of the Lower Rhineland during the first and second centuries AD, a setting in which few formally institutionalized economic interactions can be demonstrated.

**Filean, Erik [100]** see *Filseth, Sara*

**Filseth, Sara (University of Iowa), Erik Filean (University of Iowa) and Dawn Wilson (University of Iowa)**

[100] *Ritual Use of Horses at the Temples of Mercury and Fortuna, Nijmegen, The Netherlands*

Ritual deposits of horse remains are fairly common in the Romano-Batavian area, although recent comparison of two temples at the nearby town of Elst suggests that there were notable exceptions to the general practice (Robeerst n.d.). This paper examines ritual use of animals at the temples of Mercury and Fortuna in the town of Ulpia Noviomagus during the 2nd century AD. A key question: Did the use of horses at these temples follow a general Batavian pattern, or did ritual performance for Roman political patrons govern practices at some cult sites in the area?

**Finlayson, Bill (Council for British Research in the Levant), Colin Quinn (Washington State University) and Ian Kuijt (University of Notre Dame)**

[133] *Early Neolithic Bead Production: Technology and Visibility during the Forager-Farmer Transition*

Analysis of Early Neolithic ground stone bead production provides important insights into prehistoric technology, trade patterns and cultural identity. This study examines the ground stone

beads and associated chipped stone material from the Pre-Pottery Neolithic A settlement of Dhra', Jordan, and provides new understandings of this important technology during the foraging-farming transition in the Near East. Analysis of spatial patterning of bead use and production at Dhra' as well as comparison to other regional settlements, illustrates the importance of stone bead production to the peoples of the Early Neolithic.

**Finney, Bruce [71]** *see* Jordan, James; *see* Maschner, Herbert

**Fish, Paul R. [46]** *see* Rider, Micala; [31] *see* Fish, Suzanne K.

**Fish, Suzanne K. (University of Arizona) and Paul R. Fish (University of Arizona)**

[31] *Constructing Place in Hohokam Classic Period*

One of the hallmarks of the cultural shift marking the advent of the Hohokam Classic period in southern Arizona is the appearance of substantial adobe architecture in residential compounds and platform mound precincts. These emerging architectural configurations both reflected and structured the changing social relations of the Classic era. Architectural attributes and sequences in residential and civic environs at a central site reveal distinctive new ways of constructing place that continued to have social relevance beyond its occupational span.

**Fisher, Lynn (University of Illinois-Springfield), Jennifer Giesler (University of California, Santa Barbara), Corina Knipper (University of Tuebingen), Eric Nocerino (University of California, Santa Barbara) and Rainer Schreg (University of Tuebingen)**

[93] *The Neolithic Settlement Landscape of the Southeastern Swabian Alb (Germany)*

This poster presents goals, methods, and preliminary results of a collaborative project investigating Neolithic settlement of the Swabian Alb limestone plateau region in southwestern Germany. The project combines systematic survey of plowed fields and analysis of large private collections to investigate site distributions on the plateau, which is largely poor in surface water but a source of regionally important chert raw material. Comparisons of site locations in terms of soil type, distance to water, and distance to chert sources show that numerous sites from the Bandkeramik to the younger Neolithic are either associated with chert sources or high-quality settlement locations.

**Fisher, Lynn [93]** *see* Harris, Susan

**Fisher, Victor (Towson University)**

[22] *Object Lessons in Archaeoastronomy*

Specific object lessons have emerged from the efforts of archaeoastronomers over the past three decades. In this paper their work at three locations in the American Southwest is discussed. Two of the settings (Casa Rinconada and Penasco Blanco) are in Chaco Canyon, New Mexico. The third is at Wupatki Pueblo, Arizona. The lessons concern errors in inferences that stem from readily identifiable sources. The incompleteness of site restoration records, overlooking pertinent ethnographic data, and failure to examine crucial details of site restoration have been at the heart of the problems.

**Fisher, Jr., John [27]** *see* Neeley, Michael

**Fitzgerald, Carlos [116]** *see* Wake, Thomas

**Fitzgerald, Richard (California Department of Transportation, District 4) and Jeff Rosenthal (Far Western Anthropological Research Group)**

[151] *The Paleo-Archaic Transition and the Origins of Cultural Diversity in Cismontane California*

From the shores of the Pacific to the crest of the Sierra, from the northern forests to the arid south, California's diverse ecosystems were paralleled by an impressive array of native inhabitants. The origins of this cultural mosaic can be traced to the regionally specific archaeological assemblages that mark the earliest of California's cultures. Unlike other areas of the continent, however, California lacks a clearly definable "Paleoindian" record. Instead the earliest known cultures of Cismontane California are foragers who initiated the plant-intensive economies that came to characterize all subsequent periods of California prehistory.

**Fitzsimmons, James (University of South Dakota)**

[99] *Written Perspectives on Death and Transformation in Ancient Maya Society*

As described in Maya hieroglyphic writing, ancient Maya death rites were complex affairs involving fire, dance, and even repetitive, timed modification of the tomb environment. How death was described, as well as subsequent activities involving ancestor veneration, reveal that for the

Maya death was a process rather than a single event, in many ways echoing practices observed elsewhere in the Americas.

**Flad, Rowan K. (Harvard University)**

[55] *Assessing the Significance of Late Neolithic Walled Sites in the Chengdu Plain*

Late Neolithic walled sites have been identified near Chengdu since the discovery of Baodun in 1984. Presently, at least nine such sites are known in this region. The contemporaneity and function of these enclosures is currently being debated, as is the role of these sites in the development of complex societies in this region. The period following the emergence of these walled sites saw the florescence of a strong polity, known most widely from the fabulous finds at Sanxingdui and Jinsha. This paper examines these issues and compares the situation near Chengdu to other late Neolithic walled sites in China.

**Fleisher, Jeffrey (Lehigh University) [90] *Discussant***

**Fletcher, Roland (University of Sydney)**

[144] *Thinking Angkor*

Angkor, the great medieval Khmer capital, has been a focus of western scholarship for over a century. But due to Cambodia's late 20th century tragedy Angkor was not brought into the incessant disputes of the past thirty to forty years of archaeological theorising. In consequence, Angkor offers a powerful opportunity to think of other paths for archaeology than the prevailing, exhausted conceptual truce between the processual and contextual approaches. An alternative can now be envisaged that decouples the material and the social action and implements a hierarchy of explanatory scales to encompass the myriad possible perspectives of archaeology.

**Fletcher, Roland [144] *see Evans, Damian***

**Foias, Antonia E. (Williams College)**

[73] *Conclusions and Prospects for Future Research*

Debates about Classic Maya political structure continue, although the existence of variability in the scale and degree of centralization of Maya polities is now recognized. However, there have been few studies that have explored in detail how the political organization of a Classic Maya state is manifested in the relationship between the primary center and its dependent secondary or tertiary centers. Multidisciplinary studies in the Motul de San Jose zone have now provided exciting hints into the complexity of these political, economic and social ties between Motul de San Jose and its dependent centers, such as La Trinidad, Buenavista-Nuevo San Jose, Cantetul, Chakokot, Chachaclum. This paper will provide preliminary conclusions and propose prospects for the next stage of investigation of the political structure of the Central Peten Lakes area.

**Foias, Antonia E. (Williams College) [159] *Discussant***

**Folan, William [72] *see Hurtado Cen, Araceli***

**Folan, William J. (Universidad Autonoma De Campeche) and Joel D. Gunn (North Carolina State University)**

[81] *What Was the Weather Like Back Then? The Calakmul Basin of Southeastern Campeche and Adjacent Regions during the Preclassic*

Recent investigations in and around the Calakmul Basin include a relationship between climate change, hydrological responses and soil erosion and depositions concurrent with the development of the Regional Center of Calakmul, Campeche, and environs. Investigations include excavations and coring of bajos around and within the city, and coordinated coring at the mouth of the Candelaria River.

**Foley, Jennifer [12] *see Estrada Belli, Francisco***

**Foley Winkler, Kathleen (The University of Wisconsin-Milwaukee)**

[38] *Oneota Mortuary Practices in Southeast Wisconsin: An Example from the Walker-Hooper Site*

Developmental Oneota in Southeast Wisconsin are represented by two divergent mortuary programs. These programs reflect inter- and intra-site social networks during the 13th and 14th centuries, as well as the political and social atmosphere of the Illinois/Wisconsin region during this time.

**Ford, Stephanie**[113] *Archaeological Education is a Viable Subdiscipline*

Archaeologists have an ethical duty to communicate the results of their research to the public. One way archaeologists have fulfilled this obligation is through the development and production of educational materials and programs. These outreach efforts are beginning to affect the research interests of future archaeologists. This paper explores how students of archaeology become aware of their responsibility to the public, how public education is becoming an essential component of archaeological research, and how archaeological education has emerged as a viable subdiscipline.

**Forman, Kelly [50]** *see Bikowski, Emily*

**Forster, Marcus (University of Bradford), Carl Heron (University of Bradford), Ben Stern (University of Bradford), Oliver Craig (University of Rome) and Soren Andersen (National Museum of Denmark)**

[46] *The Contents of Late Mesolithic/Neolithic Ceramics from Denmark*

In order to investigate issues of dietary change and the exploitation of marine resources during the Mesolithic/Neolithic transition (around 4,000 BCE), a number of potsherds from six sites in Denmark have been analysed for the presence of organic residues. Samples have been selected from Tybrind Vig, Bjørnsholm, Norsminde, Ringkloster, Ertebølle and Store Amose. These have been subjected to gas chromatography, gas chromatography/mass spectrometry (GC/MS) and gas chromatography-isotope ratio-mass spectrometry (GC-IR-MS) to understand the origin of the lipid extracts. The presence of specific biomarkers combined with carbon and nitrogen isotope ratios provides a valuable means of identification. The significance of these results will be outlined.

**Forsyth, Marion (Lawyers' Committee for Cultural Heritage Preservation)**[138] *Jury Instructions in ARPA Cases*

What must a jury find to convict a person who takes archaeological resources from public lands under the Archaeological Resources Protection Act? This paper will explore the mens rea standard under ARPA and the directions being given to juries who decide guilt or innocence. Particular emphasis will be given to cases in the Ninth Circuit, and a model jury instruction will be proposed.

**Fortnam, Sara R. [33]** *see Manzano, Bruce L.*

**Foss, Jacob (University of Montana) and David Clarke (University of Montana)**[103] *The Lithic Assemblage from the 2004 Field Season at the Bridge River Site, British Columbia, Canada*

The Bridge River Site, located in south-central British Columbia, is a complex hunter-gatherer village on the Canadian Plateau. The 2004 field season yielded over 15,000 lithic artifacts. The villages 80 pithouses and over 150 external features, date from 1700BP-200BP. This paper looks at the relationship between the lithic assemblage and dated housepits at the site. This study offers insight in the role of lithic technology in the evolution of the village. The extensive lithic assemblage offers the opportunity to examine change in the socio-economic organization throughout the lifespan of the village.

**Foster, Michael [94]** *see North, Chris*

**Foster, Thomas (BHE Environmental, Inc.) and Arthur Cohen (University of South Carolina)**[143] *Palynological Evidence of Hunting Techniques in Relation to the Eighteenth Century Deerskin Trade in the Southeastern United States*

The deerskin trade was a major factor in the economy of the Indians of the southeastern United States during the eighteenth century. Hides from deer were collected by southeastern Indians and traded in great quantities to European markets through ports in South Carolina. Indian deer hunting techniques included methods which burned large portions of the forest. A recent palynological study at Fort Benning, Georgia and Alabama reveals evidence of anthropogenic forest fire which may be the result of increased deer hunting and the eighteenth century deerskin trade.

**Fowler, Catherine S. (University of Nevada, Reno)**[29] *The Value of Material Culture Collections to Great Basin Ethnographic Research*

In the 1970s, Richard Ford was instrumental in documenting the declining condition of

anthropological collections in U.S. museums, and helping institute the NSF and other initiatives to try to conserve them. As part of this process, through his own work and that of others, he also illustrated the value that these collections could have for answering anthropological research questions. Great Basin ethnographic collections scattered in several public museums were direct and indirect beneficiaries of these initiatives, and have proven particularly useful toward understanding a variety of former Great Basin lifeways as well as transitions to modernism. Specific examples are documented.

**Fowler, Catherine S.** [111] *see Hattori, Eugene M.*

**Fowler, Don (University of Nevada, Reno)** [122] *Discussant*; [37] *Discussant*

**Fowler, Don (University of Nevada, Reno) and Barbara Malinky (University of Nevada, Reno)**

[138] *The Origins of ARPA*

The Archeological Resources Protection Act (ARPA) was passed by Congress and signed into law by President Jimmy Carter on October 31, 1979. Development and passage of the bill was a complex and contentious process. The developmental and legislative history of the bill is presented based on documents and oral histories of the participants.

**Fowles, Severin (University of Wales, Swansea)**

[6] *Archaeology of the Beautiful Maiden: Gendered Worship in Northern Tiwa Prehistory*

Initially recorded at Taos Pueblo in 1906, the 'story of the Beautiful Maiden' details the adolescence, maturation, and deification of the apical female figure in the Northern Tiwa pantheon. In this paper, I use the story as a lens through which to reexamine the changing ceremonial roles of women in Taos prehistory, arguing that female participation in the ritual sphere declined markedly following the initial period of village life. Out of this reexamination, new conclusions are drawn regarding the nature of gendered ritual spaces as well as the ritual exclusion of women as a means of enhancing male priestly power.

**Fowles, Severin** [48] *see Minc, Leah*; [69] *see Pugh, Christina Waskiewicz*

**Fox, Jake (University of Pittsburgh), William Castellon (Universidad Mayor de San Andres), Maribel Perez Arias (Universidad Mayor de San Andres) and Adolfo Perez Arias (Universidad Mayor de San Andres)**

[49] *Wankarani: Recent Investigations in Formative Period Highland Bolivia*

This poster presents preliminary results of the 2003 investigations of the Proyecto Orureo Formativo. Diachronic excavation data from two Formative Period altiplano sites of the Wankarani Complex are used to elucidate patterns of settlement interaction, subsistence economy, and social organization during this critical period of Bolivian Prehistory. Artifact attribute analyses complement radiocarbon dates in an attempt to refine chronological control of Formative Period sites and assemblages.

**Frachetti, Michael (University of Pennsylvania)**

[125] *Bronze Age Networks of Interaction and Questions of Exogeny*

Archaeologists are typically asked to choose from models of population movement or "cultural diffusion" to explain the occurrence of exotic archaeological materials in local assemblages. This issue is writ-large in the scholarship of the Eurasian steppe. A close examination of newly excavated Bronze Age materials from Eastern Kazakhstan shed light on this question, and provide an alternative perspective on the way populations of the 2nd Mill BCE engaged in highly complex, and varied forms of regional and pan regional interaction.

**Frame, Lesley (MIT) and Heather Lechtman (MIT)**

[42] *Crucible Smelting of Copper Ore at 5th Millennium Tal-i Iblis (Iran)*

Fifth millennium ceramic crucible sherds excavated by J.R. Caldwell at Tal-i Iblis provide strong evidence of use in an extractive metallurgical technology for winning metallic copper from copper oxide ores. Crucible interiors, heavily vitrified with copper prills trapped within a slaggy matrix, were heated to temperatures reaching 1200°C; sherd exteriors reached only ca. 1000-1100°C. These crucibles were charged with ore and covered with fuel to concentrate heat within the crucible chamber. Archaeological and metallurgical investigations of crucible smelting indicate that crucibles were widely used in prehistory where copper oxide ores were processed. Tal-i Iblis provides one of the earliest examples anywhere in the world.

**Francis, Julie (Wyoming Department of Transportation)** [90] *Discussant*

**Francis, Julie (Wyoming Department of Transportation) and George Frison (University of Wyoming)****[67] *Portable Art Objects in the Bighorn Basin of Wyoming***

The Bighorn Basin is well known for its spectacular and diverse petroglyphs and pictographs. However, portable art objects have only rarely been found. This paper describes several pieces of portable art from the Bighorn Basin of Wyoming. The first is an engraved plaquette found near the Medicine Lodge Creek site on the eastern side of the Basin; the remainder includes engraved steatite tubes recovered from the base of a Dinwoody tradition rock art panel in the western Bighorn Basin. Archaeological and ethnographic data are examined to offer possible interpretations for the use of these items, as well as to discuss the role of arte mobilier in the prehistoric and historic cultures in the area.

**Francisco Sanchez Nava, Pedro (Instituto Nacional de Anthropologia e Historia)****[132] *The Archaeological Registry of Mexico***

This paper explains the general vision of Mexico's National Registry of Archaeological Monuments. It will clarify the categories of protection for national archaeological heritage, the differences between a Zone de Archaeological Monuments, an Archaeological Site and an Archaeological Monument. Emphasis is given to the need and obligation for foreign projects to provide standardized data to be able to expand information banks. Likewise, this paper will explain the methodology for an official declaration as a Zone of Archaeological Monuments in Mexico.

**Franco Jordan, Regulo [66] see Quilter, Jeffrey****Frashuer, Anya (University of South Florida), Michael D. Glascock (University of Missouri-Columbia), Vladimir Popov (Far East Geological Institute), Nicolai N. Zaitsev****[4] *Obsidian sources in the Amur River basin***

Obsidian tools are known from some sites in the Amur River basin, but the source of basaltic-type archaeological obsidian remained unknown. Sites with evidence of obsidian use from the same source are located in the middle and lower streams of the Amur River, up to 1400 km apart. In summer 2004, in the course of fieldwork under CRDF grant RG1-2538-VL-03, high quality basaltic volcanic glass was found on the Obluchle Plateau, Lesser Kingan Mountains. Analysis of this source and of the archaeological obsidian will aid in understanding trade and exchange in the area. The results of INAA will be presented.

**Fratello, Edward (University of Wisconsin-Milwaukee)****[133] *Robenhausen Revisited: Modeling a Neolithic Economy with Plant Remains From Existing Museum Collections***

Robenhausen, a Neolithic site in Switzerland best known for its well preserved organic remains, was one of the earliest systematic archaeological excavations in Europe. Artifacts from this site are in numerous museums around the world, including the Milwaukee Public Museum in Wisconsin. The research potential of older museum collections is demonstrated by an analysis of wild and domesticated plant specimens from the site in light of recent economic and dietary models. Comparisons are drawn with similar collections at other institutions, including the Wetzikon Museum in Switzerland. Results suggest a delicate interplay between broad spectrum foraging, mixed farming, and economic specialization.

**Frederick, Ursula [114] see Clarke, Annie****Freid, Donna [151] see Herrmann, Nicholas****Freter, AnnCorinne (Ohio University)****[134] *Defining the Copan Maya Invisible Settlement Bias and its Implications***

Maya settlement data have been collected via surface survey for over 100 years, yielding critical information on the visible architecture left behind by the ancient Maya. Subsurface deposits, however, have proven more difficult to identify, creating a growing concern among scholars that the "invisible" or "hidden" structures buried below ground- surface may create a systematic settlement bias. This paper details the identification of these "invisible" structures during the PAC II Copan rural settlement survey, and explores their sampling ramifications. Several "invisible" categories are identified based on excavations, including fieldhuts, kitchen platforms, lithic, ceramic, and plaster workshops, and earlier phase structures destroyed for later phase building materials. The theoretical implications of these "invisible" Maya remains are considered, and methodological recommendations for their recovery are offered.

**Frey, Carol (University of Washington)**[130] *Zooarchaeology and the Ecological Impacts of Small Scale Societies*

I suggest that the over next decade, zooarchaeology will see closer examination of the ecological impact of prehistoric small-scale societies. Recent research has shown hunter-gatherer populations to have had substantial, long-term impacts on the structure of ecological communities throughout the world. While our interest in human ecology is long-standing, our grasp of the ways in which small-scale societies shaped regional ecological structures is in its infancy. Drawing on examples from South African pastoralist sites, I argue that we emphasize ecological theory and change across time, rather than behavioral interpretation of isolated data.

**Friedman, Edward [27]** see *Bender, Susan*

**Frink, Douglas (Archaeology Consulting)**[67] *Where's Waldo: Shamanism in the Domestic Archaeological Record*

Is Waldo a singular entity whose totality can be differentiated from the massive throngs of society? Or, perhaps Waldo is the fulfillment of many characteristics in one being? As scientists, we tend to reduce the search to a singularity, one entity embodying all the characteristics of "Waldoness." The average two-year-old, not indoctrinated by reductionistic thinking, looks at this same picture and sees Waldo's glasses, hat, and cane everywhere, integrated throughout the picture. Is Shamanism to be similarly reducible to a singularity, a person, usually male, embodying the Arendtian characteristics of "action" divorced from "work." Or can shamanism be viewed as an integral aspect of everyday life expressed in the way in which work is actualized? Examination of an archaeological site's location within a broader ecological community provides a more holistic examination of "actions" coupled with "labor." Environmental reconstruction and ethno-historical data are used to define foraging behavior, not as simply the gathering of food, but as the realization of shamanist belief.

**Frison, George [67]** see *Francis, Julie*

**Fritsche, Rebecca**[98] *Clay Resources and Ceramic Technology: A Clay Oxidation Analysis of Pueblo IV Ceramics from Tundastusa (AZ P:16:3)*

This paper investigates Pueblo IV period ceramic technology from Tundastusa, in the Forestdale Valley, east-central Arizona. Plain and decorated wares were refired and compared to geological clays to determine which ceramic types were produced locally. Both plain and most decorated wares refired similarly to each other, and to local clays, and were probably locally produced. Contrastingly, Fourmile Polychrome exhibited lighter and more variable paste colors following oxidation and likely come from multiple non-local sources. The results are compared to previous analyses of Fourmile Polychrome to better understand how Tundastusa residents interacted with other Pueblo IV communities in the region.

**Fritz, Gayle (Washington University, St. Louis) [145]** *Discussant*

**Fritzler, Marlene [54]** see *Reese-Taylor, Kathryn*

**Frost, R. Jeffrey (University of Wisconsin at Madison)**[99] *Mortuary Architecture and Cemetery Organization at the Panteon de la Reina, Southern Costa Rica*

This paper describes the results of recent excavations at the Panteón de la Reina, a Chiriqui Period (A.D. 750-1500) high status mortuary complex in southern Costa Rica. Excavations revealed two separate interment areas and paired sets of elaborate mortuary architecture associated with the funerary process. These patterns are consistent with those expected for moiety organization in which moiety divisions were strictly maintained after death. These data, especially when linked with those from the Panteón de la Reina's residential site, Rivas, offer an unprecedented opportunity to evaluate living-dead interactions in Southern Central America.

**Fruehsorge, Lars (University of Hamburg)**[110] *Histories from Ruins: Archaeology between Guatemalan and Mayan Identity*

After a period of 35 years of violence against the indigenous population of Guatemala during civil war, a political movement has been formed to defend indigenous rights. Based on the idea of a pan-Mayan identity these people interpret results of excavations to create their own historical perspectives. Members of the countries ladino elite on the other hand use indigenous heritage to



create a national identity. This paper will present results from ethnographic fieldwork on identity and history and economy in the ruins of Iximche, former capital of the prehispanic Maya-Kaqchikeles.

**Fry, Robert (Purdue University)**

[134] *Discovering the Invisible Universe - 40 Years of Searching*

This paper will explore the changing research agendas associated with the invisible universe of ancient lowland Maya activity over the past 40 years. Changing perspectives on lowland Maya demography, and household organization have affected how and what we search for. In addition changes in theory and research design have continually restructured our understanding of important variables. I will relate these changes to programs of invisible universe and hidden house mound identification at three programs I have been associated with: peripheral Tikal, Pulltrouser Swamp and Chau Hiix, Belize. Each program reflected the current issues in Maya archaeology, demography, economic specialization and household structure.

**Funari, Pedro Paulo (UNICAMP) and Mourad Tamima (UCL)**

[107] *Stewards of Empire: Heritage as Colonialist Booty*

Stewardship and colonialism are tightly interrelated. It can be defined as a tendency that stemmed out of the need to appropriate, protect, and guard; it nonetheless resulted in the abduction, deformation, and isolation of heritage from the living populations, as suggested by Latin American and Near Eastern cases. In this paper, we study how colonialism has historically shaped museum stewardship against distinct heritage backgrounds. Selected episodes of stewardship are here used illustrating the twofold background of stewardship; both political and pseudo-scientific enterprise, where stewards, are not mere mediators between past and present, rather pivots of their governmental sponsors' political interests.

**Futato, Eugene (University of Alabama Museums) [37] Discussant**

**Gaff, Donald (Michigan State University)**

[40] *What Was He Thinking? Samuel A. Barrett's Milwaukee Public Museum Accession Records for the Aztalan Site*

Samuel A. Barrett of the Milwaukee Public Museum conducted excavations at southeastern Wisconsin's Aztalan site in 1919, 1920, and 1932. Recently, Barrett's accession records for his Aztalan collection were transcribed into a database and analyzed. These records yielded a wealth of archaeological information about this well-known Mississippian site, but more interestingly, they contain idiosyncracies and historic curiosities that offer insight into how ideas about Aztalan were shaped in the pre-World War II era. This paper presents details from these records, results of analysis, as well as some speculation about Barrett's thoughts as permitted by the unique nature of these records.

**Gamble, Lynn (San Diego State University)**

[67] *Crossing Over to the Other Side: Ritual Practices among the Chumash*

Archaeological evidence indicates that basic religious practices of the Chumash were pervasive over a wide region in the past. The use of charmstones, effigies, whistles, smoking pipes, and other religious objects has persisted for thousands of years, indicating that ceremonial beliefs associated with these items have developed over the millennia. The context and meaning of ceremonial artifacts are investigated to determine the nature of ritual behavior and changes in the management of the supernatural realm over time.

**Gamble, Lynn (San Diego State University) [120] Discussant**

**Gamboa Carrera, Eduardo [48] see Triadan, Daniela**

**Gannaway, Amanda [87] see Gardella, Kristen**

**Garber, James F. [108] see Brown, M. Kathryn Brown**

**Garcia, Arleen [7] see Lanata, José Luis**

**Garcia Barcena, Joaquin (Instituto Nacional de Anthropologia e Historia)**

[132] *Archaeology in Mexico as an Institutional Obligation*

All archaeological remains in Mexico are considered national property, as such; the reasons and rationale for international archaeology to follow national regulations are presented. Archaeological projects carried out in Mexican territory by researchers from the United States are, for obvious reasons, the most abundant among the category of foreign projects. Graphics and

tables on approved North American research during the last five years are presented. The role of the Consejo de Arqueología as the official entity for the control for archaeological activity in the country and the implications that a permit from INAH represents for foreign projects will be defined. (Revision, approval, supervision, spaces, documents, etc.) Institutional rules regarding field schools puts this modality out of statute in Mexico.

**Garcia Barcena, Joaquin (Instituto Nacional de Anthropologia e Historia) [132] *Discussant***

**Garcia-Des Lauriers, Claudia (University of California, Riverside)**

[117] *Proyecto Arqueológico Los Horcones: A Preliminary View*

Proyecto Arqueológico Los Horcones is focussed on investigating the nature of cultural interaction between Teotihuacan and the site of Los Horcones. Evidence from sculpted monuments has all ready shown strong connections between Teotihuacan and the Pacific Coast of Chiapas. This paper presents a preliminary view after the first season of fieldwork and will compliment this artistic evidence with data gathered through archaeological fieldwork at Los Horcones, and further explore the interaction between these two regions.

**Garcidiego, Raul Hernandez [116] *see Neely, James***

**Gardella, Kristen, and Amanda Gannaway (Barnard College)**

[87] *Monumental Architecture and Elite Occupation: Implications for a New Definition of Andean Urbanism*

A familiar problem in high-profile monumental sites is a history of extensive and underpublished excavations. This presentation revisits one of extensively excavated and understudied monuments at Tiwanaku known as the Kheri Kala, a rectangular multicomponent structure with a large interior patio that has been alternatively referred to as a palace, a market place and a storage facility. The reanalysis of the exposed architecture and original notes provides concrete information on the form and function of this structure, and serves to examine one crucial and undefined aspect of Tiwanaku space which is the degree of overlap between public architecture and elite residence.

**Garratt-Reed, Wendy (Hamilton College)**

[3] *Not Just Another Historic Farmstead*

This poster presents the analysis of artifacts from an historic farmstead, located in St. George, Maine, at the very southern tip of Penobscot Bay. This farmstead dates from the early to mid-nineteenth century and was inhabited by a fairly wealthy mariner who later turned to farming. Excavation of the site combined with information from local historical records paints a picture of life on the coast of Maine during the first half of the nineteenth century. Far from being redundant, this farmstead site provides an important link between the local community and its early settlers.

**Garraty, Christopher P. [13] *see Miller, Roberta Neil***

**Garrison, Thomas (Harvard University)**

[12] *Remote Sensing and Survey in the Xultun-San Bartolo Intersite Area*

This paper discusses the combination of new remote sensing techniques and standard survey methods in the investigation of the intersite area between Xultun and San Bartolo. The use of satellite imagery, high-resolution GPS, and total station survey in a random sampling technique has provided interesting data on ancient settlement in the intermittent bajos between these two archaeological sites.

**Garza, Sergio (University of California, Riverside)**

[112] *Ethnographic Models of Cave - Community Relations*

Ethnographic work in a Q'eqchi' Maya community in the Peten explored a number of aspects of cave - community relations which have implications for the interpretation of cave use among the ancient Maya. Observations of modern behavior suggest that archaeologists need to rethink ideas about the proximity of caves to communities and the relationship of cave morphology to utilization. Questions related to issues of individual as opposed to community control and access have received little attention archaeologically but may have been important in the pre-Hispanic power structure.

**Gatewood, Doreen [98] *see Welch, John***

**Gavioli, Lisa (University of Arizona)**

[69] *Prehispanic Adobe Brick Architecture: Evidence from Chevelon Ruin, Northeastern Arizona*  
 First documented in the Southwest over a century ago, prehistoric adobe bricks were interpreted by early researchers to be hand-molded, whereas form-molded adobe bricks were assumed to be a Spanish introduction. In recent years, evidence of prehispanic form-made adobe technology has discredited this assumption. This study presents the results of recent investigations at Chevelon Ruin, an ancestral Hopi site in northeastern Arizona. Through compositional and morphological analyses, evidence for prehispanic form-molded adobes at Chevelon is situated in the context of other known sites where this technology was present prior to Spanish contact.

**Gear, W. Michael (Red Canyon Ranch) and Linda Scott Cummings (Paleo Research Institute)**

[53] *Cooking Clays through Time: Knobby Balls to Poverty Point Objects*  
 Rocks have long been heated and used to heat water in vessels for cooking. Areas with no rocks provided challenges in boiling technology. Early cooking clays probably were relatively amorphous shapes, retaining knobs and irregularities from formation. Examination of cooking clays from south Texas provides the earliest record of use. The record of starches recovered from cooking clays from Poverty Point objects indicates that lotus root was an important resource cooked in vessels using these cooking clays to heat the water. An archaeoclimatic model shows occupation of Poverty Point between the Indus and Vandal events.

**Geib, Phil (Navajo Nation Archaeology Department)**

[111] *Tracks in the Sand: Sandals as Indicators of Changing Social-Economic Spheres along the Colorado River*

Sandals have a potential great variety of specific construction and design attributes and can be directly dated to establish chronologies of development. They are, therefore, significant for examining spatial patterns in material culture across the Colorado Plateau and between this region and the Great Basin. Analysis and dating of sandals from a large area centered on the Colorado River demonstrates that footwear of the earliest foragers shared close links to the Great Basin, but by 6000 BC sandal styles shifted towards those of foragers to the south. With the arrival of crops a boundary of sorts developed along the Colorado River.

**Geib, Phil** [25] see Kay, Paul T.; [27] see Ahler, Stanley; [52] see Cubbon, Emily; [52] see Heitman, Carrie

**Geller, Pamela L. (American University)**

[86] *Putting it in Feminist Perspective*

To contextualize the session, I review recent theoretical trends in feminist archaeology. The past decade of scholarly work has produced a body of diverse perspectives situated under the umbrella of feminist archaeology. Multiple theories have significantly expanded practitioners' interpretations. However, not all feminist perspectives currently in circulation can be effectively or productively applied to archaeologists' available datasets. Given different quantities of materials, quality of preservation, textual resources, and analogical references, perhaps feminist archaeologists should critically evaluate the application of specific theories to recovered data. Herein I address how archaeologists can engage feminist theories to consider specific cultural cases and datasets.

**Gerber, Steve** [51] see Jones, Kevin T.

**Gerhardt, Kim** [141] see Arakawa, Fumiyasu

**Gerhardt, Kimberlee (Consulting Geologist), Fumi Arakawa (Washington State University), David Gonzales (Fort Lewis College) and Mary Gillam (Consulting Geologist)**

[94] *Igneous Diatremes as Sources of Flakable Lithologies and Pottery Temper in Southwestern Colorado*

Flakes of aphanitic minette were identified from Ancestral Puebloan habitation sites in Mesa Verde Park and nearby Ute Reservation. Although this micaceous, olivene-rich lithology is more common to the south, three igneous centers, called diatremes, are adjacent to MVNP. The northernmost contains dense, black, flakable aphanitic minette. This material erodes into the Mancos River and is found, flaked, on gravel terraces downstream. Crumbling diatremes are an easy source for pottery temper. Grayware sherds with micaceous temper were found next to two sources in UMTP and MVNP. These sherds are probably local wares rather than trade items from the Chuskan region.

**Gerstenblith, Patty (DePaul University)**

[138] *Recent International Cases and Prognosis for the Future: Avenues for Cooperation in Domestic and International Archaeological Protection*

We tend to think of different fields of archaeology as distinct from each other, and we similarly tend to bifurcate the legal regimes that address the problems of domestic and international archaeological site looting. The recent use of different legal mechanisms from the domestic and international contexts has resulted in more creative legal solutions. The Sentencing Guideline for Cultural Heritage Resource Crimes and the SAA's Standards for Archaeological Damage should be adapted to the international archaeological heritage and we should move toward greater integration and understanding of the domestic and international legal regimes.

**Gerstenblith, Patty (Depaul University) [65] *Discussant***

**Gessler, Nicholas (UCLA Human Complex Systems Program)**

[89] *Artificial Culture: A Posthuman Approach to Processual Archaeology*

Empirically, culture is the complex interaction of cognitions, individuals, groups, artifacts and architectures, differentially distributed through space and time. Artificial culture is the quest for describing, understanding and explaining the evolution of culture process using computer simulations. It seeks to explore large constellations of counterfactual "what-if" scenarios using computational objects that represent multiple material, energetic and cognitive agency, each operating across a mix of media and scales. An ideal simulation is a system (theory) built of interlocking relationships (hypotheses) that is free to evolve creative solutions (heterarchical emergences) from novel adaptive challenges, a specifically posthuman scientific approach to processual archaeology.

**Ghasidian, Elham [92] *see Conard, Nicholas***

**Ghazal, Royal (University of Chicago), Michael Glascock (Univesity of Missouri), Jeff Speakman (University of Missouri), Christopher Descantes (University of Missouri) and Nicholas Kouchoukos (University of Chicago)**

[83] *Production Zone Sourcing and Intra-regional Exchange of Ceramics from the 4th Millennium BC Susiana Plain, Iran*

Ceramic sourcing via neutron activation analysis (INAA) has met with considerable difficulty in the Near East. In the Susiana Plain (Iran), prior INAA research concluded that source clays were too homogenous to have discriminating power. Emboldened by statistical reanalysis of this data and advances in INAA, we propose that inter-site variability can be discerned in this region and have subjected a dataset of 200 ceramics, dating to the fourth millennium BC, to INAA at the MURR reactor. Contrary to prior research, our results demonstrate clear compositional groups, suggesting localized production and regional exchange of ceramics.

**Ghobadi, Ali (American University)**

[156] *Your Big Backyard: Small-scale GIS Analysis of a Village Landscape in Northwest Argentina*

Small-scale archaeological landscape studies can complement even limited excavation data without further alteration of a site. I present data from recent research undertaken at the village of Cardonal, a multi-component formative site in the Andes of Northwest Argentina, combining the results of initial excavations with easily recorded geospatial data. Small-scale GIS analysis of the orientation and elevation of habitation structures within the village reveals that similarly shaped structures throughout the site may have served distinct purposes. In contrast to assumptions that status relations during the formative period were relatively equal, the Cardonal data suggest a notable differentiation of living habits.

**Gibbs, Sherry A. [112] *see Griffith, Cameron*; [72] *see Lucero, Lisa J.***

**Giblin, Julia (Florida State University)**

[100] *Strontium Isotope and Trace Element Analysis of Human Skeletal Material from Hungary*

Accelerated mass spectrometry was utilized to study isotopes and trace elements in human skeletal material from a Middle Copper Age Hungarian site.  $^{87}\text{Sr}/^{86}\text{Sr}$  isotope ratios in the human teeth were compared to values in the bone and teeth from local faunal species to study population movement. All samples were tested for trace element concentrations to evaluate preservation, correlations between trace elements and isotopes, and to identify dietary differences. Preliminary analyses suggest the population did not utilize soils in the Carpathian Mountains. Trace element concentrations indicate differential preservation between teeth and bone as well as distinct diet ranges between species.

**Giesler, Jennifer [93]** *see Fisher, Lynn; see Harris, Susan*

**Gifford-Gonzalez, Diane (University of California, Santa Cruz)**

[161] *Animal Use in the Early Colonial Southwest: Dimensions and Prospects*

Over the last thirty years, zooarchaeological studies of indigenous animal use in the pre-contact Southwest have become increasingly sophisticated. They have expanded from species lists to exploring changing ecological relations over time, inter-ethnic symbioses, social dimensions of predation and provisioning, and roles of animal species in social rituals and ideological change. Much less is known of the time span immediately after the Spanish occupation of the region. However, studies carried out in the last decade open prospects for exploring details of indigenous and colonist animal use during this period. Taken together these studies can inform future research design.

**Gil, Adolfo [130]** *see Neme, Gustavo; [156]* *see Shelnut, Nicole*

**Gilbert-Young, Sabra (National Park Service)**

[28] *Identification of Cervid Vestigial Foot Elements from Zooarchaeological and Modern Comparative Collections*

Vestigial foot elements originating from the dew-claws of several cervids are documented and anatomically positioned to aid zooarchaeologists in their identifications. The ability to recognize these elements directly impacts the number of identified elements in a collection. Vestigial metacarpals and the vestigial first and second phalanges can be used to identify whether or not that element came from a fore limb or a hind limb. Implications for their occurrence within late prehistoric Alaskan sites are presented.

**Gilgan, Elizabeth (AIA)**

[152] *"Temptation Island" and Cruises: The Effects of Tourism on Archeology in Belize*

Since 1997, the government of Belize asserts that the tourist industry is the pillar of their economy. With over 2000 sites, archaeology represents one of the largest tourist attractions in the country. The government's goal is to develop more of these sites in order to boost the economy. For such a small country is Belize prepared to face the challenges of such a large initiative? Is the government priority tourism, or the preservation of the archeological material, or both? The issues presented in this paper can applied to almost any country struggling to maintain and preserve its cultural heritage.

**Gillam, J. Christopher (University of South Carolina)**

[143] *Advancing Archaeological Predictive Modeling in the Southeast: A Perspective from the Middle Savannah River*

Archaeological predictive modeling in the southeast has a long and productive history. Models based upon manual measurements and univariate statistics are common, while automated multivariate techniques are becoming popular as geographic information systems and digital datasets become more accessible. As archaeological site samples increase and multivariate analyses take hold, existing models need to be tested with independent site samples and compared directly to models employing advanced multivariate techniques. Methods for testing extant models and for the development of time-sliced and adaptation-based multivariate predictive models are demonstrated using data from the Middle Savannah River of South Carolina.

**Gillam, Mary [94]** *see Gerhardt, Kimberlee*

**Gillespie, Susan D. (University of Florida)**

[31] *Place and Person at Teotihuacan, Mexico*

Pronounced differences between Classic period Teotihuacan and contemporary Maya cities are frequently explained using an analytical dichotomy that contrasts groups and individuals. According to this approach, Maya art and architecture manifest a cult of the ruler, whereas Teotihuacan's depersonalized art, lack of royal tombs, and gridded plan indicate a corporate group ethos. However, archaeological evidence for these interpretations is not compelling; moreover, the dichotomy is misleading. The key to their differences may lie in conceptions of embodied versus emplaced personae. The identity of Teotihuacanos was shaped by the city itself, and their concepts of personhood entwined with their built environment.

**Gillette, Donna (University of California, Berkeley)**[162] *The Intersection of Ritual and Technology in a California Rock Art Tradition*

Are the ritual and technological aspects of culture capable of existing side by side at a rock-art site? The existence of both PCNs (Pecked Curvilinear Nucleated elements - the result of a ritual event) and BRMs (Bed Rock Mortars - grinding holes for food processing) on several boulders in the Coastal Ranges of California, and the incidence of PCN elements decorating three portable food processing vessels poses such a question. Where do food technologies and ritual intersect? What is the evidence for similar occurrences in the archaeological record in general and specifically in California and is it possible to ascribe meaning?

Gilliland, Kim [71] see Huntly, Nancy

**Gilman, Patricia (University of Oklahoma) and Lisa Young (University of Michigan)**[139] *The Pithouse and the Pendulum: Changing Views of Pithouse Communities in the American Southwest*

In this paper we examine the ways that archaeologists have historically interpreted southwestern pithouse community organization, providing a context for understanding the significance of current research. For early archaeologists, pithouse sites represented the first settled farming villages. Much research in the 1980s questioned these interpretations, seeing instead pithouse dwellers as mobile people who practiced a mixed subsistence strategy. Recent research on Late Archaic agricultural dependence and variation in the economic and social organization at pithouse sites have prompted the need for re-examination of the origins and development of southwestern communities during a critical period of change, A.D. 200-900.

Gilpin, Dennis [139] see Young, Lisa C.; [141] see Wilcox, David R.

**Gilreath, Amy (Far Western) and Daron Duke (Far Western)**[137] *Sloan NCA Archaeology and Rock Art*

The rock art concentrated in Sloan Canyon prompted Congress to recently designate this National Conservation Area, south of Las Vegas. One-fourth of the Sloan NCA has now been intensively surveyed, allowing us to identify the prehistoric period and nature of use of this serene environment. Materials unambiguously document use between 500 and 1500 years ago. Though the Sloan NCA had just this one brief pulse of activity, pottery and rock art point to use by different groups. The nature of its prehistoric land-use is considered vis-a-vis ethnically diverse Native peoples.

**Ginn, Sarah (University of California, Santa Cruz)**[114] *Investigating Culture Contact through "Missionwares"*

Locally produced "Missionwares" from colonial Alta California have commonly been used as a measure of the acculturation of indigenous people to Spanish lifeways. Such acculturation studies have excluded discussion of other sorts of culture contacts such as those among Coast and Valley Indians, California Indians and Mexican Indian/Mestizo settlers, and Mission and Non-Mission Indians. In this paper, I use a practice theory approach to identify multiple "communities of practice" within Missionware assemblages and to illuminate these diverse and dynamic processes of culture contact in Alta California during the Spanish Period (1769-1834).

Giovas, Christina M. [4] see Taylor, Amanda K.

**Glaab, Rigden (University of Texas at Austin)**[108] *General Utility Bifaces: An Analysis of Incorporative Lithic Reduction Strategies and Dynamic Recycling Practices*

The Late Classic Maya (A.D. 600-850) of Colha, Belize utilized a lithic type called general utility bifaces for activities ranging from deforestation to stone molding as evidenced by use-wear patterns. Exploring different recycling practices, I have discovered a previously unnoticed technique for the proximal reduction of these implements whereby the truncated poll could be employed as a bit in contact. Using statistical analysis, I will elucidate this recycling pattern by emphasizing the reduction techniques this strategy shares with other lithic technologies found at Colha. This paper will place paramount importance on the dynamism represented by general utility bifacial recycling behavior.

**Glascock, Michael D. (University of Missouri) and Phil C. Weigand (Colegio de Michoacan)**[163] *Obsidian Exploitation and Exchange in Western Mexico*

Obsidian was an indispensable material for the prehistoric peoples of Mesoamerica in the manufacture of objects used for war, hunting, ornaments, figurines to represent their gods, and

sacrificial knives for human sacrifices. The state of Jalisco, located in western Mexico, has one of the highest densities for obsidian sources in the world. Instrumental neutron activation analysis and x-ray fluorescence spectroscopy have been employed to establish compositional profiles for the obsidian sources in Jalisco, Nayarit, and Zacatecas. Using these compositional profiles, the patterns of obsidian exploitation and exchange in western Mesoamerica will be discussed.

**Glascok, Michael D.** [133] *see Vargo, Barbara A.*; [163] *see Blomster, Jeffrey*; [25] *see Speakman, Robert*; [26] *see Ferguson, Jeffrey*; [27] *see Descantes, Christophe*; [48] *see Creel, Darrell*; [83] *see Ghazal, Royal*; [163] *see Popov, Vladimir K.*; [25] *see Popelka, Rachel S.*; [27] *see Hoard, Robert J.*; [4] *see Frashuer, Anya C.*

**Glassow, Michael (University of California, Santa Barbara)**

[19] *The Significance of Mussel Collecting to California Channel Islands Prehistoric Populations*  
The dietary importance California mussels to prehistoric populations varied in time and space on the California Channel Islands. Some of this variation is determined by geographic variables that affect the distribution and productivity of mussels, but the availability of other marine food resources also was important. Moreover, the degree to which populations on each of the Channel Islands depended on California mussels affects the character of the archaeological record, particularly with regard to site visibility. Thus, the nature of subsistence-settlement systems, and the degree to which they may be discerned, varied depending on the degree of dependence on mussels.

**Glassow, Michael (University of California, Santa Barbara)** [115] *Discussant*

**Glover, Jeffrey (University of California, Riverside), Kathryn Sorensen (University of California, Riverside) and Scott Fedick (University of California, Riverside)**

[12] *From the Region to the Test Pit: Integrating Multi-scalar Data in a GIS Environment*  
The Yalahau Regional Human Ecology Project has been conducting research in the northeastern portion of the Yucatan Peninsula of Mexico for over a decade. Integrating regional settlement pattern data, community scale data along with remote sensing and other environmental data has been facilitated by the use of GIS technology. This paper will explore the successes and failures associated with this integration as well as some of the projects results.

**Glowacki, Donna M. (Arizona State University)**

[48] *Northern San Juan Intra-regional Interaction During the "Turbulent 1200s"*  
In the late 13th century, the large-scale regional depopulation of the Northern San Juan resulted in the displacement of 1,000s of people. Delineating the social and economic connections in place during this time of widespread emigration enables assessment of how cooperative interactions may have related to the process of depopulation. This research documents intra-regional interaction by sourcing the production and distribution of Mesa Verde pottery among 23 sites to identify cooperative networks utilized during this stressful, and ultimately transformative time. Results suggest a high percentage of local production and distribution, differences in the circulation of jars and bowls, and significant variation in intra-regional ties.

**Glowiak, Elizabeth** [51] *see Rowland, Stephen*

**Gnecco, Cristóbal (Universidad del Cauca)**

[7] *Theory on the Archaeology of the Early Peopling of the Americas*  
The archaeology of the early peopling of the Americas was dominated by empirical concerns. While this research approach produced a wealth of information, it did not address theoretical discussions. Even regarding methodology there were few developments; the basic methodological preoccupation was the establishment and implementation of reliable standards for claim assessments, especially about the temporality of sites and assemblages. An empirical approach, however, does not preclude a theoretical apparatus, even when it is not explicit. In fact, an unstated theoretical agenda exists in the archaeology of the early peopling of the Americas, which will be examined in this paper.

**Goebel, Ted (University of Nevada, Reno)**

[1] *This Just In: Archaeologists in Great Basin Discover Buried Record of Paleoindians*  
Great Basin Paleoindian archaeologists have long worked under the maxim "To find old sites, we first must find old dirt." The dogged search is starting to pay off. Excavation and analysis of rockshelters, caves, and open-air sites are providing new and exciting information about Paleoindian chronology, subsistence, and land use. Through these site-based studies and complementary regional analyses of technological and settlement organization, we are making

impressive progress toward accurate reconstruction of early-period hunter-gatherer adaptations. In this presentation I review these accomplishments and attempt to place our region's record within the broader context of the peopling of the Americas.

**Goebel, Ted (University of Nevada Reno)**

[88] *Terminal Pleistocene Technological Activities at Bonneville Estates Rockshelter: A First Look at the Artifact Record*

Bonneville Estates Rockshelter (western Bonneville basin, Nevada) contains a rich record of human activities dating to the very end of the Pleistocene Epoch. In this paper I present details of the rockshelter's earliest lithic and perishable artifact assemblages, and attempt to reconstruct human technological organization, especially as it relates to early hunter-gatherer subsistence and settlement behavior in the eastern Great Basin. Toolstone procurement was non-local, and technological activities in the rockshelter focused on tool resharpening and maintenance. Overall, the artifact record appears to represent a series of short stays by small groups of highly mobile, far-ranging foragers.

**Goff, Sheila [111]** see Benden, Danielle

**Gold, Debra (St. Cloud State University) [90]** *Discussant*; [6] see Trigg, Heather

**Goldberg, Paul (Boston University) [155]** *Discussant*

**Golden, Charles (Brandeis University)**

[12] *Looking Near and Far: Finding the Borders between Maya Polities*

Since 2003 Guatemalan and American archaeologists have been conducting a regional survey in the Sierra del Lacandón National Park of Guatemala, in an effort to define the nature and development of political borders, boundaries and frontiers between the Classic period (c. AD 400 - 800) Maya polities of Piedras Negras and Yaxchilán. This paper (1) provides an overview of the logistical and methodological challenges encountered on the ground in attempts to carry out this survey project, (2) examines what impact, if any, remote sensing data have on the theoretical and methodological development of this ongoing project, and (3) considers some of the implications of remote sensing data for future research in this and other heavily forested regions of the world.

**Golden, Charles [50]** see Bair, Daniel

**Goldsmith, A. Sean (University of Calgary)**

[134] *Defining Houselots through the Identification of Spatially Patterned Subsurface Material: A Case Study from Chau Hiix, Belize*

Systematic subsurface investigations in a portion of the Chau Hiix rural settlement, using a standardized posthole augering methodology, have greatly increased the visibility of residential patterning beyond that achieved by surface survey in the same area. Surface-visible mounds and patio-focused groups are contextualized by this approach within the houselots that surround them. Probable houselot features identified entirely by subsurface material patterning include gardens, provisional discard locations, secondary disposal areas, pathways, and the boundaries of the houselots themselves. Compelling evidence also points to the identification of complete houselots not initially described on the basis of visible surface remains.

**Goldstein, Lynne (Michigan State University)**

[165] *NAGPRA's Effects on Archaeological Interpretation: The Long Term and the Long View*

This paper examines NAGPRA's effect on archaeology from the perspective of an archaeologist studying mortuary practices. The perspective is informed by active involvement in developing NAGPRA and its implementation, and by working with archaeologists and tribes over the last 15 years. However, where I may differ from other panelists is that my focus is on the impact of NAGPRA on the practice and interpretation of archaeology, rather than on the ethics of archaeology (although that is critical). How has NAGPRA changed the way we interpret archaeology and use of past literature and reports? What does this mean for the future?

**Goman, Michelle [152]** see Mueller, Raymond

**Gomez, Esteban (University of California, Berkeley)**

[91] *Colonial Landscapes: The Archaeology and History of the Gulf of Fonseca Region, Eastern El Salvador*

One of the goals of this presentation is to make some of the complex aspects of the Salvadoran



experience before, during, and after Spanish colonialism more visible to other Americanist scholars and also to encourage further studies about this country and its colonial legacies. Thus, this discussion will review some of the ways in which the historical analysis of two Spanish communities (Conchagua Vieja and Santa Ana de la Teca) in the Gulf of Fonseca region in eastern El Salvador have not only better informed our understanding of colonial life in eastern El Salvador, but also of the landscape, and the processes involved in its creation.

**Goñi, Agustín Rafael [106]** *see Barrientos, Gustavo*

**Gonlin, Nancy (Bellevue Community College) and John Douglass (SRI, Inc., and UC-Riverside)**

[134] *Visible Problems of Invisible Structures in Classic Period Honduras: Maya and non-Maya Realms*

The estimation of the magnitude of the hidden universe of artifacts and architecture constitutes a difficult problem in archaeology. Trends established from observations, excavations, and empirical extrapolations need to be examined in depth. Recent efforts in Mesoamerica have accentuated the severity of the problem. Dimensions of ancient life from site layout and function to settlement pattern distribution and socio-political complexity need to be re-evaluated in light of this new emphasis. In this paper, data drawn from the Classic Maya site of Copan and the Naco Valley will be analyzed to compare and contrast the situation in the Maya and non-Maya realms of Honduras.

**Gonzales, David [94]** *see Gerhardt, Kimberlee*

**Gonzalez, Sara [162]** *see Modzelewski, Darren*

**Gonzalez-Licon, Ernesto (Instituto Nacional de Anthropologia e Historia, Mexico)**

[152] *The Barrio as Analytical Unit of Analysis in Prehispanic Mesoamerica*

The barrio represents a ceremonial organizational unit of communal activities that are carried out with certain independence to other barrios. In a regional capital, the barrio works like an administrative subunit of the state and its internal organization generally integrates the elements that constitute the governmental structure. In this sense, the barrio appears like an organizational form in which it is reproduced the economical, political, and ideological rules of the elite. I discuss here the importance of the analysis of social inequality from a barrio perspective in Ancient Mesoamerica with a comparison between the Oaxaca and Central Highland regions.

**Goodale, Nathan (Washington State University)**

[150] *Knapping the Path to Specialization: Epi-Paleolithic to Neolithic Core Reduction Strategies in the Near East*

The use of lithic reduction trajectories and degree of core standardization is rarely examined as a means to assess craft specialization. The evolution of core reduction systems during the Epi-Paleolithic to Late Neolithic provides examples of two types of core standardization with the later emphasized by specialized workshops within in large sedentary villages. The aim of this paper is to explore the evolution of core reduction systems while illuminating issues of learning frameworks, the obstacles that knappers may have been akin to during specific time periods and how this helped shape core reduction patterns through several landmarks in human prehistory of the Southern Levant.

**Goring-Morris, Nigel (Hebrew University, Jerusalem) and Anna Belfer-Cohen (Hebrew University, Jerusalem)**

[133] *The Fall of the Early Neolithic in the Near East*

Once the Neolithic existence came into being, it is commonly assumed to represent a threshold 'point of no return,' when humankind finally got on track to becoming 'us'. Neolithisation is accordingly conceived as an incremental continuum, with relatively minor disruptions occurring under sophisticated and complex circumstances. Nevertheless, at least in the Levant, the initial Early Neolithic flourish appears to have quite rapidly ground to a halt. While basic economic life-ways continue, i.e., plant cultivation and herding, the amazing scale and complexity of the Early Neolithic disappeared, only to re-emerge in the archaeological record thousands of years later.

**Goring-Morris, Nigel [44]** *see Belfer-Cohen, Anna*

**Gough, Stan (Eastern Washington University)**[36] *Late Prehistoric Bison Hunting on the Montane Snake and Weiser River Divide*

Excavations at a temporary camp indicate late prehistoric bison hunting activities in a western Idaho montane setting. Bison hunting was conducted from a high elevation camp shortly prior to the acquisition of the horse and to Euro American contact. A variety of activities are represented in the artifact assemblage. Obsidian source analyses indicate use of raw materials from sources as distant as 330 km. Investigations increase our understanding of montane subsistence activities as well as the paleogeography of bison in Idaho.

**Graf, Kelly (UNR)**[88] *Chronology and Stratigraphy of the Pleistocene-Holocene Transition at Bonneville Estates Rockshelter, Eastern Nevada*

Bonneville Estates Rockshelter is located approximately 30 miles south of Danger Cave and contains well-stratified sediments that span the past 16,000 years. Of these deposits, a 40-cm-thick section of sediment dating to the terminal Pleistocene-early Holocene has yielded several organic-rich cultural strata containing Great Basin stemmed points and associated lithic artifacts, perishables, features, and thousands of faunal and vegetal remains. Stemmed point occupations are separated from Archaic occupations by nearly 40 cm of sterile rockshelter sediment. This paper presents both the chronological and stratigraphic context of the terminal Pleistocene human occupation at Bonneville Estates Rockshelter.

**Graff, Sarah R. (University of Chicago)**[47] *Seal Impressed Vessels from Western Syria: Indicators of a Redistributive Economy or Simply Large Cooking Pots?*

Ceramic sherds from the 3rd millennium B.C. were found in western Syria with impressions on the neck and rim made from cylindrically shaped seals. Seal impressed vessels have been found in cooking contexts at various sites in the region. Cylinder sealing practices from Mesopotamia have frequently been related to the administrative functioning of the emerging state economies there but the practices in western Syria do not fit the Mesopotamian model. This paper will examine the evidence for cooking and seal impressed vessels in western Syria and the social practices we can extract from such evidence.

**Graham, Elizabeth [148]** *see* Howie, Linda; *see* Aimers, Jim

**Graham, Michael [119]** *see* Rick, Torben

**Graham, Russell [106]** *see* Yesner, David

**Grant, Lynn [50]** *see* Danien, Elin

**Grant, Vernelda (San Carlos Apache Tribe)**[74] *Working Together to Make a Difference: Applied Archaeology and the San Carlos Apache Tribe*

For six decades archaeological practices have taken place on the San Carlos Apache reservation in southeastern Arizona. Educational institutions, museums, and public interest groups have opened a broad window that exposes the area's rich cultural history. Using professional archaeological practices and Western Apache cultural knowledge, the San Carlos Apache Tribe is committed to address the educational, political, social and spiritual concerns of the tribal community. Organized groups such as the Historic Preservation and Archaeology Department, the Elder's Cultural Advisory Council, the Tourism Alliance and 4-H Archaeology Club play key roles in the successful practice of managing our cultural heritage.

**Grathwohl, Jeff (University of Utah) [126]** *Discussant*

**Grave, Peter (University of New England) and Lisa Kealhofer (Santa Clara University)**[144] *Changing Patterns of Land Use around Kamphaeng Phet, Central Thailand*

The relationship between agricultural intensification and the development of complexity remains a critical issue. While agricultural surplus is often seen as the mainstay of surplus production, Hirth (1996) suggests that agriculture is only one of several ways, including specialized good production, to create surplus for state development. Recent environmental fieldwork around Kamphaeng Phet investigated the timing of land use change in relation to the development of the city from the early 2nd millennium AD. Agricultural expansion seems to predate the historical city's formation, and specialized production centers appear to be a consequence of the development of urban networks.

**Graves, Adam (University of Oklahoma)**

[2] *Climate, Grasses, Bison, and Humans on the U.S. Southern Great Plains during the Early Paleoindian Occupation (11,900 - 10,200 B.P.)*

This study uses Laser Ablation Inductively coupled Plasma/Mass Spectrometry (LA-ICP/MS) to examine the down-tooth distribution of trace elements in enamel of *Bison bison* and *Bison antiquus* from the U.S. Southern Great Plains. In addition, I evaluate the impact that changing climate, vegetation, and fauna had on human adaptive strategies on the Southern Plains between 11,900 B.P. and 10,200 B.P. Paleoenvironmental proxy data indicate a shift from a cool and moist climate with a diverse flora to warmer and drier conditions with a more homogenous steppe environment on the Southern Plains. Acquired elemental concentrations from *Bison bison* tooth samples provide an elemental map from which the movements of migratory prehistoric herds may be assessed. *Bison antiquus* tooth samples may indicate an adaptation to a more seasonal environment by having longer and more structured movements after the Younger Dryas. Human adaptive strategies on the Southern Plains shifted from a moderately specialized approach to highly specialized around 11,000 B.P. There is a clear relationship between environmental change and human adaptation on the Southern Plains between 11,900 B.P. and 10,200 B.P.

**Graves, William (University of Iowa)**

[22] *Bison Procurement and Trade Fairs among the Jumanos Pueblos, Central New Mexico*

In this paper, I examine Plains exchange relationships and the procurement of bison among the Jumanos Pueblos, a group of four pueblo villages in central New Mexico occupied from A.D. 1300 to the 1670s, by examining the inter-site distribution of bison remains from excavated samples. One pueblo in particular, Gran Quivira, seems to have enjoyed much greater access to bison than other villages. I conclude that the hosting of large-scale trade fairs with Plains hunter-gatherer groups began sometime in the 1400s or 1500s, well before the first documentation of these events by Spanish colonist and missionaries in the late 1600s.

**Greaves, Russell (Center for Archaeological Research University of Texas at San Antonio)**

[140] *Ethnoarchaeology through Behavioral Ecology: Integrating Material Studies with Anthropological Approaches to What Tools Do*

Ethnoarchaeological investigations of technology have overwhelmingly focused on the manufacture of gear items. This provides very direct links with material analyses about the archaeological record but emphasize the mechanics of construction to understand technical systems and patterning in the archaeological record. Ethnoarchaeology also offers significant opportunities to develop methods for studying traditional economic activities even with technologies that are not specifically analogous to pre-steel tools. Quantified ethnoarchaeological research employing behavioral observation methods expands opportunities to investigate a range of technologies, subsistence practices, land use, labor organization, and social structure beyond approaches dependent on direct analogies with specific prehistoric materials.

**Grebennikov, Andrei V.** [163] *see Popov, Vladimir K.*

**Green, Lyn (Royal Ontario Museum)**

[47] *Aspects of Communal and Ceremonial Food Preparation in New Kingdom Egypt*

For the past several years I have been studying various aspects of banqueting and feasting in ancient Egypt. It is clear that ancient Egyptians used occasions of communal consumption of food to create or support social hierarchies. Like their Bronze Age Near Eastern counterparts, New Kingdom pharaohs used distribution of cooked food as well as rations to cement political and economic relationships. My past studies have concentrated on the serving of these foods, but this paper would look at the methods of food preparation for these ceremonial or ritual occasions.

**Green, Paul** [60] *see Crane, Brian*

**Green, Thomas (Arkansas Archeological Survey)** [36] *Discussant*

**Greenlee, Diana** [4] *see Cochrane, Ethan*

**Greenlee, Diana M. (University of Washington) and Mark R. Schurr (University of Notre Dame)**

[80] *Assessing Waste among Late Archaic Populations of the Green River Area, Kentucky*

Late Archaic populations situated along the Green River in Kentucky (ca. 3400 - 2000 B.C.) were responsible for the deposition of huge shell heaps that contain, in addition to a rich assortment of mundane tools and other occupational debris, numerous human and dog burials and a variety of objects made of exotic materials. Clearly, a lot of nonreproductive energy was channeled into the

latter phenomena. After outlining why bet-hedging may account for the fixation of "waste" in this situation, we consider variation in cultural elaborations, isotopic evidence for diet and weaning, and demography among two populations (Indian Knoll and Carls[t]on Annis).

**Greer, John [67]** *see Greer, Mavis*

**Greer, Mavis (Greer Services) and John Greer (Greer Services)**

[67] *Dance Rings and Shaman on the Northern Plains*

Stone circles are common on the northern Plains, but extra large enclosures occur infrequently. Circles and ovals over nine meters across are larger than residential rings and lack the interior partitions and external attachments of medicine wheels. It has been hypothesized that some may be communal lodges or dance rings for a specific ceremonial precinct. Settings usually overlook lower areas and are always in open country away from sites like caves and large rockshelters, where ritual activity was known to occur. These are locations, of extreme exposure to heat, cold, rain, snow, and wind -- conditions which, along with intensive rhythmic drumming and exhaustion from prolonged dancing, cause trance. It is suggested that these large stone circles are dance rings associated with communal ritual or social activity, for which trance would be a reasonable component.

**Gregg, Michael (University of Toronto)**

[46] *Survival of Organic Residues in Pottery from Southwest Asia during the Early Holocene*

For this study, 150 ceramic fragments from twelve early villages in southwest Asia were examined utilizing gas-chromatography and mass-spectrometry. Five fragments exhibited abundances, elution orders and molecular weights characteristic of bitumen, whereas only two sherds exhibited biomolecular signatures of animal fats or vegetable oils. Due to poor preservation of n-hexadecanoic acid (C16:0) and n-octadecanoic acid (C18:0) specific functions were unable to be securely attributed to this assemblage of ceramic fragments. Future biomolecular reconstructions from this formative period must identify the soil properties and climatic conditions that facilitate the preservation of fatty acids and pinpoint locations with the greatest likelihood for survival of organic residues.

**Gregory, David A. [141]** *see Wilcox, David R.*

**Greubel, Rand (Alpine Archaeological Consultants, Inc.)**

[105] *The Case for Fremont Lithic Craft Specialization at Hunchback Shelter, a Seasonal Camp and Obsidian Workshop in Southwestern Utah*

Located near one of the major obsidian sources in the eastern Great Basin, Hunchback Shelter (42BE751) is a small rockshelter in the Mineral Mountains. Excavation of the shelter has yielded a large flaked lithic assemblage, much of it associated with Fremont occupations dating between A.D. 650 and 1250. Throughout the Formative period, bifacial preforms, arrow points, and flakes of obsidian were produced in large quantities at the site. Certain aspects of the flaked lithic data as well as other lines of evidence suggest that some of the Fremont materials may represent the work of part-time craft specialists.

**Griffith, Cameron (Indiana University), Sherry Gibbs (Western Belize Regional Cave Project) and Jaime Awe (Director, Belize Institute of Archaeology)**

[112] *Managing Xibalba: Actun Tunichil Muknal and the Negotiation of Social and Political Contexts of Maya Cave Space in the Present*

Starting with the very first scientific investigations into Xibalba, Mesoamerican cave archaeology has developed not only alongside modern ritual activity but in the midst of burgeoning public interest in subterranean sites. As a result of this interest, like elsewhere in the world, several archaeologically sensitive cave sites have been opened for tourism in Mesoamerica. This paper presents the history and latest developments in the conservation efforts and tourism management in the Belizean site of Actun Tunichil Muknal, and focuses on the wider social context of the modern activity occurring within the cave.

**Griffith, Cameron (Indiana University) and Josh Wells (Indiana University)**

[64] *Trading Definitions of Spaces: Exploring the Repercussions of Archaeological Definitions for Ethnicity in the Ancient Maya and Mississippian*

This paper focuses on archaeological strategies for recognizing evidence of ethnicity in the ancient Maya and Mississippian worlds and what happens when those lines of evidence are transposed. Ancient Maya polities and Mississippian chiefdoms are structurally different examples of social order, wherein the expression of ethnicity was important for reproducing local

order and maintaining external relations. Archaeologists working in both areas have developed methods that are pertinent to their specific locales, but draw upon higher order anthropological concepts. Test cases for the transposition of evidence for ethnicity between the ancient Maya and Mississippian worlds will be evaluated.

**Griffith, Carol (AZ SHPO) [37]** *Discussant*

**Griffiths, Weston [100]** *see Staeck, John*

**Grimm, William J. (University of Missouri-Columbia)**

[48] *An Alternative Statistical Approach to Chemical Characterization Data*

Using Chuska gray ware ceramics as a case study, I demonstrate a new approach to the statistical assessment of data derived from neutron activation analysis (NAA). Included in this approach is a method that corrects for the relative uncertainty of measurement resulting from differential elemental sensitivity of the detectors used in NAA, a new way to find chemical groups in NAA data, and a variation on the usual method of determining probabilities of group membership that does not use the Mahalanobis distance metric and is more robust for smaller data sets. An alternative data display technique is also presented.

**Gross, Timothy (Affinis and San Diego Archaeological Center)**

[33] *The Pathways to Orphanhood*

Collections can become homeless and endangered in a number of ways. Companies holding collections go out of business, professors retire without making arrangements for the boxes of artifacts, notes, and photographs they left behind, firms do away with their cultural resources departments, museums change direction. This paper examines the mechanisms of becoming orphaned and explores, to a degree, the magnitude of the problem from both a regional (Southern California) and national perspective. Although the volume of such collections can appear overwhelming, there are success stories out there give reason for hope.

**Gross, Timothy (Affinis and San Diego Archaeological Center) [37]** *Discussant*

**Gross, G. Timothy [35]** *see Warren, Claude N.*

**Grove, David (U. Florida)**

[81] *Rethinking Formative Period Morelos*

Formative period developments in Morelos are reanalyzed and shown to be more complex and regionally precocious than usually acknowledged. The Early Formative, characterized by Tlatilco culture, manifested precocious public architecture and interactions that emphasized West Mexico more than the Gulf coast. Middle Formative interactions greatly diversified and included the Gulf and Soconusco coasts, Puebla-Tlaxcala, Guerrero, and Oaxaca. Chalcatzingo became a dominant regional center with stone monumental art, mound architecture and unique polychrome ceramics. The Late Formative underwent a marked change in political organization, and interaction patterns realigned to the Valley of Mexico, Guerrero and West Mexico.

**Grove, David (University of Florida) [149]** *Discussant*

**Gruis, Rachael (Idaho State University)**

[142] *The Forest for the Trees: Seeing the Landscape Beyond the Site*

Cultural landscapes are manifestations of a people's world-view. They are culturally driven and used for aesthetic, spiritual, or economic reasons. Landscapes may be historic or prehistoric and may encompass one or more archaeological sites. While cultural landscapes in the eastern United States are often planned, historical, formal landscapes, such as gardens, farmsteads, or communities, landscapes in the American West are often less well-defined. Archaeologists in the American West must reassess their approach to identifying and addressing cultural landscapes when planning research objectives or projects. Early planning and consideration of cultural landscapes must be considered.

**Guernsey-Kappelman, Julia [54]** *see Reese-Taylor, Kathryn*

**Guerra Santander, Ericka (Center for Archaeological Research in Arequipa) and Miriam Doutriaux (University of California, Berkeley)**

[66] *Local Impacts of Imperial Conquest: A Comparison of Inka and Spanish Settlements in the Lower Colca Valley, Peru*

People across the Andes were conquered twice in less than a century, becoming subjects of the Spanish empire only decades after losing their sovereignty to Inka rule. In the lower Colca Valley, regional settlement patterns suggest that each episode of conquest dealt differently with the

preexisting sociopolitical and cultural diversity. Our paper takes a diachronic look at the hinterland of two colonial towns settled in different ethnic territories in the valley, to provide insight into the local nature and impact of each period of rule, and the way in which local characteristics shaped each occupation.

**Gueyger, Andrea (California State University, Sacramento) and Martin Biskowski (California State University, Sacramento)**

[149] *Maize-Grinding Technology in Formative Tlaxcala*

The intensification of food preparation is a significant but often overlooked component of the intensification of food production. Analyses of manos, metates, and other grinding tools discussed in this paper identify the sequence of technological changes in maize preparation which accompanied increased dependency on maize in Tlaxcala. The implications of this sequence of changes for patterns of production and use are examined and contrasted with evidence from the Basin of Mexico and other regions.

**Guidon, Niéde [30] see Parenti, Fabio**

**Guilfoyle, David (Alpine Archaeological Consultants, Inc.)**

[105] *Modeling Fremont Mobility Patterns Based on Data Pertaining to Anticipated and Actual Length of Site Occupation*

The goal of this paper is to contribute to our understanding of Fremont mobility using a sample of sites identified during the Kern River 2003 Expansion Project. The data are examined using a model developed by Kent (1992) that contrasts anticipated and actual length of site occupation. This model outlines the archaeological correlates for a number of site variables that provide insight into these dichotomous factors influencing or structuring mobility. In applying these variables to an analysis of Fremont sites, it is possible to draw conclusions as to the nature of regional mobility patterns and identify factors causing spatio-temporal variation.

**Gullapalli, Praveena (College of Wooster)**

[20] *Investigating the Colonial Legacy of Indian Archaeology*

This paper investigates what it means if local populations reject connections with the archaeological past that archaeologists and others postulate. Archaeology was introduced into the South Asian subcontinent enmeshed in power relations, which have had profound repercussions (still reverberating) for the ways in which the discipline was embraced by South Asian scholars. The ways in which archaeologists deal with these repercussions has implications for the practice of archaeology. One is that although Indian archaeology has developed a strong tradition, a legacy of its colonial history is the proposition that archaeology is the only legitimate way of knowing the past.

**Gummerman, George J. (School of American Research)**

[154] *R. Gwinn Vivian: The Enabler*

Scholars' reputations are usually judged by the quality and quantity of seminal publications they have produced. A better gauge of their overall impact on their discipline can be gotten by considering the effect their research has had on other scholars. This is a much more difficult attribute to measure and aside from counting citations, is quite subjective. Gwinn Vivian, by any measure, has had a profound impact on archaeology. While famous for his Chaco research, his interest in water systems, communication networks, behavioral ecology, and ethnicity has resonated with researchers throughout the Southwest and other semi-arid areas of the world.

**Gummerman IV, George (NAU), Joelle Clark (NAU) and Doris Honanie (Moencopi Day School)**

[74] *Hopi Footprints: A Cultural Curriculum for Hopi Schools*

Our three-year professional development program for Hopi educators uses archaeology and elder oral history to build a standards-based cultural curriculum for K-6 Hopi schools. Archaeological sites provide a stimulating arena for cultivating an understanding of past cultural traditions that are linked to the lives of today's Hopi people. Hopi oral history discusses these archaeological sites telling the story of Hopi migrations across much of the Colorado Plateau. Hopi educators, elders, archaeologists, and curriculum specialists are incorporating these stories and traditions into a culturally responsive curriculum that enables Hopi youth to come to understand what it means to be Hopi.

**Gunn, Joel D. [81] see Folan, William J.**

**Gutierrez, Gerardo (CIESAS) and Mary E. Pye (Brigham Young University)**

[157] *Late Archaic to Formative Olmec Style Paintings at Cueva del Diablo, Eastern Guerrero, Mexico*

The presence of Olmec style paintings in eastern Guerrero is not well known nor well understood. A local cave painting tradition was present in the area in the Late Archaic, with Olmec style paintings executed directly over the earlier works, covering some and incorporating other elements into its own schema. While archaeological research in eastern Guerrero has been limited, the presence of a Prehispanic trade corridor connecting the Pacific Coast with the central Mexican highlands suggests that this region was important in the Mesoamerican Late Archaic and Formative periods.

**Gutierrez, Maria [30]** *see* Martinez, Gustavo

**Gyulai, Ferenc (Institute for Agrobotany) and Irwin Rovner (Binary Analytical)**

[164] *Overcoming Darwin's Curse: Morphometric Analysis and Computer-Assisted Classification of Seeds*

A morphometric data base consisting of seed populations for 1300 taxa (some 130,000 seeds and 2.6 million measurements) was used to assess specific protocols and assumptions of conventional classification and identification. Some fundamental assumptions of typological classification are challenged. Mean values are meaningless, distributions are not normal, standards for "representative" morphotypes types and control populations are inadequate; and considerable conventional wisdom and interpretation of fossil and archaeobotanical seeds in culture history and paleoecology is suspect. Many of these flaws can be corrected using computer morphometry and quantitative analysis. Development of an automated smart system for seed identification is suggested.

**Haaland, Gunnar [85]** *see* Haaland, Randi

**Haaland, Randi (University of Bergen) and Gunnar Haaland (University of Bergen)**

[85] *Caste: Sociological Conceptualisation and Archaeological Documentation*

Caste groups are characterized by their association to specific occupations with ranked social identities. They are made relevant in the organization of different sectors of activities, e.g., marriage, ritual, politics, economics, and ideology. The emergence of caste may relate to early state formations where it may facilitate a division of labour and a wide range of circulating goods and services. Thus a study of the spatial distributions of material forms may indicate practical and symbolic aspects of caste, allowing for its recognition in prehistory. In our paper, we will review our ethnoarchaeological studies of caste societies in Ethiopia and Nepal.

**Haapanen, Minna (Cotsen Institute of Archaeology, UCLA)**

[14] *The Social Role of Eating in the Context of Shang Bronze Manufacturing*

It is well known that in the Late Shang period Anyang (ca. 1300-1046 BCE) foodways were crucial to the maintenance of elite power. I suggest that they played a crucial role for other social classes as well, especially for the specialized bronze manufacturers who through their craft were intimately connected to the food and drink centred ceremonial life of the Shang elite. In this paper I examine this possible social use of foodways by specialized bronze manufacturers of the Late Shang dynasty by looking at ceramic vessels discovered at Miaopu Locust North, Anyang, Henan Province, China, in the early 1960s.

**Haas, Herbert (RC Consultants, Inc.), Silvia Rodriguez Kembel (University of Pittsburgh) and Greg Hodgins (University of Arizona)**

[160] *Radiocarbon Dating Procedures at Chavin de Huantar, Peru*

Monumental construction at Chavin occurred in a long, complex sequence. Prior research produced no radiocarbon dates for the early stages of the site's growth. In 2004 we searched for organic matter embedded in the site's construction materials, both externally and within the site's intricate network of internal galleries. We documented and collected 288 charcoal samples primarily from mortar contexts. Carbonate and humic acid contaminants were removed by extended pretreatment with acid and base solutions. We present a set of AMS dates for Chavin's construction, and discuss issues involved in radiocarbon dating the Andean formative period.

**Haas, Herbert [160]** *see* Kembel, Silvia Rodriguez

**Haas, Jonathan (Field Museum) and Winifred Creamer (Northern Illinois)**[128] *The Norte Chico Late Archaic (3000 to 1800 B.C.) in Regional Perspective*

Recent research in the Norte Chico region requires a reconsideration of the emergence and development of complex political systems in Peruvian prehistory. In three small adjoining valleys, more than 20 major inland centers, all with monumental architecture, appeared in the 3rd millennium B.C. These sites indicate a stronger role for irrigation based food production in the Late Archaic, and point to the Norte Chico as an economic and political center that dominated the Peruvian landscape for more than a thousand years. This paper explores the ramifications of the Norte Chico Late Archaic from a pan-Peruvian perspective.

**Haas, Jonathan [128] see Perales, Manuel**

**Haas, Lyra (Illinois Math and Science Academy)**[70] *Using Textiles to Date Sites in the Norte Chico, Peru*

Both relative and absolute dates are necessary in order to understand complex civilizations. In the preceramic occupation of the Norte Chico region, there are few alternatives to the use of radiocarbon samples for dating. Textiles, however, do provide a means by which sites in the Norte Chico may be relatively dated. Examining the weaving techniques used at a given site offers a reasonable alternative to the use of radiocarbon dates. This poster presents examples from the Norte Chico demonstrating the effectiveness of using textiles and weaving techniques to date sites.

**Haas, Randy (Northern Arizona University)**[111] *A New Twist on Cordage: The Social Implications of Variability in Archaic-Basketmaker Cordage on the Colorado Plateau*

Variability in Archaic and Basketmaker II cordage of the Colorado Plateau appears to index ideological differences in the respective human populations. I analyze cordage twist sequence and fibers from the cordage of nine southern Great Basin and northern Colorado Plateau rockshelter contexts. The analysis reveals two cordage populations that overlap in time and space. I argue that two types of social training influenced the production of cordage in the respective cultural populations. While gender differentiation appears to have conditioned the production of Archaic cordage, an ideology about directionality appears to have conditioned the production of Basketmaker II cordage.

**Habicht-Mauche, Judith (University of California, Santa Cruz) [23] Discussant****Habicht-Mauche, Judith A. (University of California, Santa Cruz) and Deborah L. Huntley (Southwest Archaeological Consultants)**[94] *Nature versus Nurture: Examining Glaze-Paint Recipes and Sources in the Central Rio Grande Valley, New Mexico*

We present results of electron microprobe and lead isotope analyses of Rio Grande glaze-paints from four sites in north central New Mexico. These analyses allow us to examine the diversity of glaze paint compositions within and among production centers. We also explore which aspects of that diversity are due to the use of distinct lead sources versus differences in how various groups of potters mixed their paints. This information, in turn, provides insight into aspects of craft production, specialization, regional exchange and inter-community interaction among the Eastern Pueblos during the Pueblo IV Period (A.D. 1300-1700).

**Habu, Junko (University of California, Berkeley)**[153] *Marxism, Science and Subsistence-Settlement Studies in Japanese Archaeology*

Current discussions on theory and practice in Anglo-American archaeology assume that the history of archaeological thought throughout the world followed three sequential stages: culture history, processual archaeology and postprocessual archaeology. Ideological implications of individual case studies are typically evaluated on the basis of this assumption. Not all the archaeological traditions, however, went through these stages sequentially. Using the case of Japanese archaeology, in which classical Marxism played a significant role from the 1940s to the 1960s and in which processual archaeology was never fully adopted, this paper argues that sociopolitical implications of certain research topics vary among different archaeological traditions.

**Hackenberger, Steve (Central Washington University), James Chatters (Central Washington University) and Brett Lentz (Central Washington University)**[151] *From Paleoindian to Archaic-The Pacific Northwest*

This paper examines cultural transformations that mark transitions from Paleoindian to Archaic



societies in the Columbia River Basin and Pacific Coast. Early migrations and population growth determine the subsequent cultural complexity that distinguish foraging peoples of related but distinct cultural traditions. Early Holocene populations spread, grew, and adapted to dynamic environments and maintained extensive social contacts and trade-networks. Unique opportunities for studying cultural evolution in the Pacific Northwest include: (1) modeling the stability of shellfish and salmonid populations, (2) testing hypotheses regarding the relative distributions of big game species and the intensification of plant root procurement, and (3) identifying prehistoric technological, social, and ideological systems.

**Hackenberger, Steve (Central Washington University) [37] Discussant**

**Hadden, Glade (Bureau of Land Management) and Johanna Hadden (Montana State University - Billings)**

[146] *Digging into Education - How to Excavate with Limited Resources*

This paper discusses a cooperative partnership between a Bureau of Land Management field office archaeologist and the College of Education at Montana State University to conduct a field school that investigated an archaeological site in Montana. The field school involved preservice and practicing teachers supervised by a Registered Professional Archaeologist and University Professor. Students were volunteer researchers who received course credit. The focus was to teach students stewardship and that archaeology is a multi-disciplinary field of study that allows teachers to integrate all subject areas. The excavation revealed a possibly Fremont firepit, pottery, charcoal, and projectile points.

**Hadden, Johanna [146] see Hadden, Glade**

**Hadenfeldt, Vaughn (Far Out Expeditions) [34] Discussant**

**Hagopian, Janet**

[131] *Ceramics and Regional Interaction During the Chacoan Period in the Zuni Area*

Recent projects on the Zuni Reservation have identified several sites dating to the Chacoan Period. Because of their ubiquity and high visibility, and of their proven value as temporal indicators, the ceramic assemblages at these sites will be used to determinate relative site chronologies and to establish contemporaneity. These sites were found to be contemporaneous, in part, and were probably interacting at the household level. In addition, a comparison of the non-local ceramics offers insight into interactions with surrounding regions. Not all sites in the study had non-local ceramics, suggesting that these interactions were probably occurring at the household level as well.

**Hajmoussa, Fatima [92] see Barkoukah, Youssef**

**Haldeman, Benjamin (Williams College), Ellen Spensley (Boston University), Matthew Moriarty (Tulane University) and Kitty Emery (Florida Museum of Natural History)**

[73] *Assessing Polity and Subsistence Economy at Motul de San Jose Using GIS and Remote Sensing Technology*

A variety of models have been developed to estimate the size and extent of ancient Maya polities, and how these entities may have articulated with their natural landscapes for subsistence. Recent developments in both remote sensing technology and GIS applications provide the opportunity to develop and test new, multi-scalar models for ancient Maya polities and their associated subsistence economies. This analysis of archaeological features in the context of larger environmental and landscape factors including soils, vegetation, geophysical features, and "natural pathways," presents a number of working models for polity and subsistence economy at Motul de San Jose.

**Hale, Lynn (Georgia State University)**

[69] *Geography and the Development of Paquime: A Cost-surface Analysis of Trade Routes between Western Mexico and the American Southwest*

Paquimé fluoresced between the 13th and 16th centuries AD. Archaeologically, it is a site rich in architecture, public works, and artifact assemblages. The presence of exotic goods, specifically copper, shell, and macaw remains in Paquimé are indicative of participation in a larger exchange system. I hypothesized that its growth and development was the result of its geographic proximity to established trade routes between West Mexico and Southwest United States. In order to test this hypothesis, I conducted a cost-surface analysis using GIS to determine the location of potential trade paths. Through analysis of these cost paths, I determined that this hypothesis was unsupported and that Paquimé was not located in proximity to any of the cost-effective trade routes that existed before its fluorescence.

Haller, Michael [123] *see Isaza, Ilean*

**Halperin, Christina T. (University of California, Riverside)**

[73] *Archaeological Investigations of Spinning and Weaving at Motul de San José, Guatemala*

Ancient Mesoamerican textile production was critical to subsistence and political economies because textiles served the daily needs of households and as a form of tribute, an exchange medium, and a symbolic display of status, wealth, and social affiliation. Despite its economic significance, few studies have investigated the organization of Classic Maya textile production. This paper examines spinning and weaving tools and their distribution at Motul de San José, Guatemala, in order to shed light on Classic Maya textile production practices.

**Hamilton, Elizabeth (University of Pennsylvania, Museum of Archaeology and Anthropology)**

[144] *Vulcan in Arcadia: 2000 Years of Metal-working in Prehistoric NE Thailand*

The site of Ban Chiang has demonstrated that the beginning of metal-working in SEA was roughly contemporaneous with metal working in China, but, unlike China, appears to have been carried out in unstratified societies. The results of a metallurgical study of 172 copper-base and iron artifacts from Ban Chiang and nearby sites, dating from the beginnings of metal use to the end of the prehistoric period, shed light on the origins of bronze-working in SEAsia and the socio-technical system behind metal-working in these village societies.

**Hamilton, Jennifer (University of Idaho)**

[11] *Investigations of Foodways within the Historic Mining Community of Silver City, Idaho*

Though today it is referred to as a ghost town, between 1865 and 1910 the remote southwestern town of Silver City, Idaho attracted a diverse population seeking economic prosperity offered by mining opportunities. Despite having varied homes of origin the population aligned into two broad groups. There was the majority who were of European descent and there was the Chinese minority who set themselves apart in a close-knit community in the southeast section of town. How aspects of ethnicity and socioeconomic status are represented in the foodways of each group is examined via the analysis of faunal remains.

**Hamilton, Marcus (University of New Mexico) and Boone, James**

[76] *Epidemiological Approaches to Cultural Change: Evolutionary Models of Transmission, Fitness, and Demography*

Materialist approaches to the origin, spread and differential retention of cultural traits typically employ two kinds of models; one that employs an analogy with genetic transmission, the other that employs an analogy with epidemiological phenomena. We explore the epidemiological model, placing it in a more evolutionary framework by emphasizing the demographic environment in which cultural traits spread as well as the effects the traits have on individual fitness. We find that the epidemiological approach offers insights that are particularly relevant to archaeological patterning through space and time. We offer two examples; the punctuated nature of cultural change in forager societies, and the effects on individual fitness and demographic process associated with the transition to agriculture.

Hamilton, Marcus [76] *see Burger, Oskar*

**Hamilton, Nathan (University of Southern Maine) and Tanya Justham (R.W. Gillespie and Associates)**

[5] *Mapping the Robert S. Peabody Museum Excavations of Nevin and Richards Sites of the Maine Coast*

Field notes and mapping from the Nevin (4500-800 B.P.) and Richards (2100-800 B.P.) archaeological sites on Blue Hill Bay of the central Gulf of Maine form the basis for detailed mapping of intra-site patterning of cultural features and activities for the Late Archaic and Ceramic periods. The excavations conducted by the Robert S. Peabody Museum of Archaeology in the late 1930's recorded and mapped with Cartesian co-ordinates over 500 features, both natural and cultural, in detailed stratigraphic sequences. The features contain in-situ faunal remains and diagnostic artifacts that in turn documented human activities and use of the sites. In this project all drawings were resealed by hand, digitized, and compiled in Auto Cad and Arc View GIS formats. This study documents the uniqueness of the R.S. Peabody field methods in the Northeast at that time, and the value of detailed reconstruction of prehistoric cultural assemblages on the coast of Maine.

**Hamilton, W. Derek (English Heritage/University of Colorado at Boulder)**

[100] *Putting People Back Into Prehistory: The Use of Bayesian Statistics for Generational Dating in Prehistoric England*

The use of Bayesian statistics for the chronological modelling of radiocarbon dates is allowing prehistoric archaeologists the chance to comfortably discuss processes and events at a generational timescale. This paper will show how modelling, in conjunction with a well-planned radiocarbon dating program, expands the range of questions and greatly enhances the quality of the interpretive answer. Examples are drawn from both stratified and unstratified archaeological sites, as well as tree-ring wiggle-matching, and span the Mesolithic to Iron Age portions of the radiocarbon calibration curve. Sites include: Howick Hut, St. Osyth Causewayed Enclosure, Dover and Ferriby Boats, and Conderton Camp Hillfort.

**Hammerstedt, Scott (Pennsylvania State University)**

[95] *Labor and Authority in Late Prehistoric Kentucky*

Archaeologists use mound construction and volume as a means to understand Mississippian political organization. Understanding the ability of elites to mobilize labor to construct mounds is of central importance. In this poster, I use recently obtained experimental data to calculate the labor requirements for individual construction stages of the Annis Mound, a 14th century site in western Kentucky. Despite low labor costs, size of mound stages are representative of elite attempts to demonstrate authority. Social differences in contributing labor for a chief (mounds and summit architecture) and for personal benefit (palisades) are discussed.

**Hampson, Jamie (University of Cambridge)**

[79] *Presenting Rock Art: Two New Visitor Centres in South Africa*

At two South African public rock art sites, there are innovative new visitor centres concerned with rock art conservation, job creation, tourism promotion, and challenging attitudes towards indigenous people and their art. The dual function of rock art as a source for research and educational purposes and as a resource for tourism income and employment will empower not just academics but also - and more importantly - local communities. I discuss methods of presentation and visitor experiences at the sites, and consider in what way, if any, the two new ventures are challenging perceptions of indigenism in South Africa.

**Handsman, Russell (Mashantucket Pequot Museum and Research Center) and Kevin McBride (University of Connecticut)**

[39] *New Pathways through Pequot Country*

The Pathways Project, funded by a grant from the National Science Foundation, is a 3-year collaboration involving museums, schools, and Native communities from New England and the Southwest. Unlike other archaeology and education initiatives, this project seeks to engage students in active learning about the interconnectedness of the natural and social worlds in Native communities. To date, partners have developed curriculum maps and explorations, summer field camps and after school programs, and a web site. While one objective is to create networks of citizen scientists, it is apparent that the project is becoming a pathway to new approaches for an archaeology in ancestral homelands.

Hanihara, T. [151] see Owsley, Doug

Hansell, Patricia [123] see Ranere, Anthony

**Hansen-Speer, Karla (Washington University in St Louis)**

[145] *Movement of Staple Goods: A Study from the Hohokam Community of Marana, Arizona*

The Hohokam of the Sonoran Desert were prehistoric agriculturalists who lived in multi-site communities. Villages occupied a gradient of ecological zones from the floodplain to the mountain piedmonts. Agricultural potential varied in each of five zones. The Marana Mound site (A. D. 1150-1250) was the central seat of authority within the larger Marana community but was located on poor agricultural land. In this paper I use paleoethnobotanical evidence to evaluate the hypothesis that intra-community exchange of staple foods was a 'critical element in the economic soundness' of the multi-site Marana community centered on the mound.

**Hantman, Jeffrey (University of Virginia)**

[146] *Of Parsimony and Patrimony: Tribal Identities and Repatriation in the Eastern U.S.*

In a recent (2003-2004) exchange in *American Antiquity Reports and Comments*, I participated in a debate concerning the association of a Late Woodland burial complex in Virginia with the historically documented Monacan Indian people of seventeenth century and present day Virginia.

Space limitations kept the debate brief and focused on the archaeological data cited to draw a connection between Woodland and colonial-era cultural history. In this paper, I expand the data and anthropological argument for the association of the mounds and the Monacan people, and consider the larger NAGPRA related issues of historic tribal identities, continuity and repatriation in the Eastern United States.

**Hard, Robert (University of Texas at San Antonio), Arthur MacWilliams (U of Calgary), John Roney (Bureau Land Management), Karen Adams (Crow Canyon Archaeological Center) and William Merrill (Smithsonian Institution)**

[141] *Long-term Ranchería Resilience in Southwestern Chihuahua, Mexico: Seeking Explanations for Persistent Dispersed Communities*

Southwestern Chihuahua, Mexico lies between Casas Grandes and the northern edge of Mesoamerica. The contrast between the dispersed farming ranchería settlements here and the Mesoamerican Chalchihuites occupations to the south defines the northern Mesoamerican boundary, yet its formation is poorly understood. The boundary cannot be readily attributed to poor farming conditions as dry farming is presently possible, and the region contains a number of highly arable river valleys. We propose a model of labor organization and cultural ecology that may elucidate this long-term dispersed ranchería pattern, which also contrasts with prehistoric episodes of aggregation in the U.S. Southwest.

**Harding, Deborah [125] see Olsen, Sandra**

**Hardy, Sam (Law School, University of Sussex, UK)**

[107] *Is There a Human Right to Loot?*

In the chaos that ensued after the Coalition's invasion in 2003, thousands of artefacts were pillaged from museums and archaeological sites across Iraq. Conflicts between the right to physical health and the right to mental health will be explored in this context. The central questions are: 'Ought archaeologists' primary role be to fulfill their professional responsibilities or their humanitarian duties?' and 'Does the right to physical health incorporate a right to loot if there are no alternative means to achieve physical health?'

**Hargrave, Michael (ERDC CERL), Kenneth Kvamme (University of Arkansas-Fayetteville) and Eileen Ernenwein (University of Arkansas-Fayetteville)**

[25] *Methodological Issues in Ground Truthing the Results of Remote Sensing Surveys*

An ongoing SERDP project is developing methods for integrating data from multiple ground, air, and space-based sensors (including multi-spectral, thermal, resistance, magnetics, conductivity, GPR). Large-area surveys were conducted at four highly diverse sites: Army City, a WW1-era town in Kansas; late prehistoric settlements in New Mexico (Escondida Pueblo) and Georgia (Kasita Town), and the 18th-century Galphin's Trading Post in South Carolina. Ground truthing excavations were conducted to compare the reliability of the remote sensing interpretations. Methodological issues in ground truthing, including anomaly categorization, sampling strategies, and the advantages and limitations of various excavation techniques are examined.

**Harker, Aaron [71] see Tews, Amber**

**Harlan, Mark (Dos Locos Consultores, LLC)**

[157] *Yet another Reconsideration of the Anthropomorphic Figurines from Chalcatzingo, Morelos, Mexico*

The Early and Middle Formative site of Chalcatzingo, Morelos, Mexico yielded more than 6000 complete and fragmentary anthropomorphic figurines. These artifacts have been studied by the author, by Gillespie, by Grove and by Cyphers de Guillén. Shortcomings in all of these studies have resulted in a failure to fully appreciate the collection's potential to enhance our understanding of the development of Mesoamerican society during the transition from a pre-state level toward a state level of organization. This paper suggests that still further study of the Chalcatzingo figurines can contribute both to methodological improvements and also to an enhanced understanding of changes which took place in the prehistoric society that occupied Chalcatzingo.

**Harmon, James (National Park Service)**

[118] *Using GIS to Understand Native American Settlement Systems: An Example from the Late Prehistoric Chesapeake*

The settlement systems of prehistoric Native Americans are often modeled on the basis of

cultural ecological relationships deduced through examination of artifact assemblages recovered from limited numbers of sites. This paper is an example of research that utilizes GIS to shift both the focus and scale such analyses. Rather than emphasizing material culture, this project was designed to identify site type as a stage in the analysis of system function through factor analysis of physiographic and other locational characteristics of 185 Late Woodland sites within those portions of southern Maryland drained by the Potomac River.

**Harms, Haley (NPS, Mesa Verde) [16] *Discussant***

**Harper, Cheryl (Washington State University)**

[141] *Pointing the Way: An Analysis of Projectile Points from the Pajarito Plateau, New Mexico*  
A morphological typology was created using over 900 projectile points collected from the Pajarito Plateau, New Mexico. The typology is defined by new types incorporating local variation as well as those identified in previous research. Past research has found that raw material sources were differentially used in the northern and southern Pajarito Plateau, particularly following village aggregation. In the current study, the geographic distribution of projectile point styles is compared to the patterning previously identified in lithic raw materials.

**Harper, Christopher (HRA Inc. Conservation Archaeology)**

[94] *Early Historic Paiute Occupation of Coyote Springs Rockshelter (26CK2954)*  
As Euroamericans expanded into the North American Great Basin in the early to mid 1800's, contact with Southern Paiute bands increased and ultimately influenced their traditional lifeways. Coyote Springs Rockshelter (26CK2954) is located near abundant springs within the upper Moapa Valley, Nevada. A major transportation corridor through the area intensified Anglo/Paiute interaction during this time period. Excavation of this rockshelter indicated that a short but repeated occupation occurred during this period. A late prehistoric assemblage was found to be in direct association with historic artifacts which date from approximately the 1830s to the 1870s.

**Harper, Nathan Kayne (University of Nevada, Las Vegas)**

[93] *Specialized Dental Wear from Venetian Period Cyprus*  
A preliminary analysis of specialized dental wear associated with a possible industrial installation from a Venetian Period (AD 1489-1571) context at Athienou-Malloura, Cyprus is presented. Investigations into the dental health of 35 adult individuals reveals a pattern possibly associated with the use of anterior teeth as tools for gripping, pulling or nipping of thread. A distinct pattern of notches, grooves, wear facets, lingual surface attrition of the anterior maxillary teeth (LSAMAT), antemortem loss of anterior teeth and associated changes in the temporomandibular joint are apparent in 53% of 15 individuals with directly associated dental remains. Implications of industrial occupational stress and sexual division of labor will be considered.

**Harris, D. [43] *see Brncic, Terry***

**Harris, Susan (University of California, Santa Barbara), Jennifer Giesler (University of California, Santa Barbara), Lynn Fisher (UIS), Corina Knipper (Universität Tübingen) and Eric Nocerino (University of California, Santa Barbara)**

[93] *Functional Differences among Neolithic Sites on the Southeastern Swabian Alb*  
The southeastern Swabian Alb (SW Germany) is rich in Neolithic sites either associated with chert raw material sources of regional importance or high-quality settlement locations. Modern agricultural practices have brought artifacts to the surface which have been collected by amateur archaeologists for several decades. These extensive collections provide a rich foundation to investigate functional and chronological differences among site locations. Lithic analysis of eight sites indicates dissimilar characteristics in blade core technology, abundance and types of tools between locations on raw material sources and settlements.

**Harrison-Buck, Eleanor (Boston University), Patricia McAnany (Boston University) and Rebecca Storey (University of Houston)**

[72] *Empowered and Disempowered: Terminal Classic Maya Burial and Sacrificial Rituals in the Sibun Valley*

Human remains can be profoundly informative of larger political and social circumstances. In Classic Maya society, messages of empowerment or conquest and sacrifice often are inscribed in the context and condition of the remains. Two Terminal Classic deposits from the Sibun Valley in Belize reflect such contrasting messages. Both deposits contain persons of elite status and point to connections with far-flung polities to the north. Yet, distinctive modes of disposal and

accompanying artifacts, as well as modifications of human remains (cut marks and carving) suggest divergent political and social responses to outside influences during a tumultuous period in Maya history.

**Harry, Karen (University of Nevada Las Vegas) and Fred Huntington (Tierra Right-of-Way)**  
[158] *The Effect of Ceramic Specialization on Household Gender Roles: Evidence from the West Branch Site*

During the Rincon phase of the Hohokam sequence, women living at the West Branch settlement specialized, on a part-time basis, in pottery production. Although such specializations were probably not uncommon in the Southwest, this represents one of the few cases in which the specializing settlement and households have been identified. Compared to other specialized craft activities, pottery manufacture is less easily incorporated into household routines. We explore how women dealt with the challenges of fitting surplus ceramic production into their daily lives and the effect that this activity had on the allocation of work and social relations within the household.

**Harry, Karen** [158] *see Slaughter, Mark*

**Hartley, Ralph (National Park Service) and Anne Vawser (National Park Service)**

[118] *Rockshelters, Rock Art and Grinding Activity in the Picket Wire Canyonlands*

The search for patterning in the prehistoric use of space is fraught with problems. The characteristics of any patterning in one plane can, nevertheless, help frame questions that are oriented toward investigating behavior underlying observations made in an archaeological context. Four clusters of rockshelters were examined in the Picket Wire Canyonlands area of the Purgatoire River valley in southeastern Colorado to assess the potential relationship between the locations of rockshelters, grinding or milling remains, and the presence of rock art. Combined GIS and quantitative procedures were used to conduct exploratory analyses of 47 spatial units with the intent of generating questions concerning the utility of rock art placement in this riverine landscape.

**Hasaki, Eleni (Bryn Mawr College)**

[45] *J.D. Beazley: The World of Ancient Attic Vase Painters and their Apprentices*

This paper will focus on the frequency of the terms "pupils," "followers," and "imitators" in the work of J.D. Beazley: *Attic Black-Figure Vase Painters* (1956) and *Attic Red-Figure Vase Painters* (1963) in which he reconstructed a vivid world of over 1000 painters from the 6th-4th centuries BCE. The absence of any methodological framework and the inconsistency in the use of these terms of ancient apprenticeship have been repeatedly criticized in modern scholarship. I will also compare his analysis of the Attic vase-painting workshops to our knowledge of the organization of the Renaissance painters workshops, a world that allegedly inspired Beazley.

**Hasegawa, Hiroyuki** [14] *see Yonekura, Kaoru*

**Hasenstab, Robert (University of Illinois/Chicago)**

[89] *Simulating Archaeological Sampling Strategies: Methods and Implications*

One of the common methodological questions in archaeology is how best to sample a site. What should the size, shape, number, and arrangement of test units be? What is the optimal sample fraction? How are these parameters affected by variations in archaeological site constituents? This paper explores these issues through the use of computer simulation of sampling strategies on digitized sites. Methodological issues of simulation procedure are addressed.

**Hass, Andrew** [129] *see Laughner, Rebecca*

**Hassan, M.** [62] *see Blackwell, B.A.B*

**Hastorf, Christine A. (University of California-Berkeley)**

[47] *The habitus of cooking practices at Neolithic Çatalhöyük*

Neolithic Çatalhöyük is located in the middle of the Konya Plain. Initially inhabited around 7200 BC, the site was occupied for nearly 1000 years. Although there is a strong sense of continuity in the foodways over time, the food related activities shifted with the seasons. There is a major shift in the area of moist food preparation, allowing us to visit issues of daily practice shifts as well as meals. Using a mix of wild and domestic ingredients, the residents maintained the same diet over time, even as the dishes changed. We gain insight into people's desires to retain familial similarity.

**Hatfield, Virginia (University of Kansas)**

[28] *Blades, Microblades, Bifaces, and Flakes - The Evolution of Chipped Stone Technology in the Aleutian Islands of Alaska*

The earliest sites in the Aleutians, circa 8000 rcybp, are characterized by blade and microblade technologies with irregular and extensively recycled cores. Around 6000 rcybp, Aleutian sites document the introduction of bifacial technology, although blades and microblades continue. After 3000 rcybp, blades and microblades are rare and well flaked, small bifacial tools and expedient flake tools dominate the tool industry. These changes document evolutionary processes in response to changing environments, subsistence strategies, and/or new people and ideas, as witnessed in the technology of the Aleutians.

**Hattori, Eugene M. [111]** *see Jolie, Edward*

**Hattori, Eugene M. (Nevada State Museum) and Catherine S. Fowler (University of Nevada, Reno)**

[111] *Early Fiber Technologies in the Western Great Basin*

On-going textile research reveals a rich prehistoric record for early perishables in the western Great Basin between 10,000 and 7000 14 C yrs. B.P. Flat, mat-based twined and plain weave bags comprise some of the earliest containers dating to 9400 B.P. These artifacts exhibit refined attributes of manufacture and decoration. By 8300 B.P. a long-lived tradition of close, simple twining, decorated through a variety of techniques, appears and persists through ethnographic times. We are only now realizing that the handful of early, dated specimens reflects fully developed technologies, whose origins and interregional relationships have yet to be determined.

**Haight, Amanda [11]** *see Clapperton, Rebecca*

**Häusler, Werner [49]** *see Wagner, Ursel*

**Hawken, James R. [116]** *see Davis-Salazar, Karla L.*

**Hayashida, Frances (Penn State University) [90]** *Discussant*

**Hayden, Brian [101]** *see Speller, Camilla*

**Hayes, Sue (Sonoma State University) and William Poe (Sonoma State University)**

[108] *Settlement Pattern and Agricultural Productivity at Baking Pot*

The site of Baking Pot (chan ke ha) in the Belize River Valley is analyzed from the perspectives of both its long-term agricultural productivity and of the distribution of house mounds in relation to the riverine topography. Remote sensing and GPS are used to map the distribution of approximately four hundred house mounds as it relates to the flood plain topography and drainage systems. The Erosion/Productivity Impact Calculator (EPIC) is used to model possible long-term agricultural strategies on various soil and slope configurations at the site. The paper models a crop strategy that optimizes the use of water resources.

**Haynes, Gary (University of Nevada, Reno) [88]** *Discussant*

**Haynes, Gregory (US Forest Service) and Terry Birk (US Forest Service)**

[26] *Kings Canyon Road and the Maintenance of Cultural Connectivity in Peripheral Western Nevada*

Frontier populations that live in regions far removed from the centers of their culture maintain connectedness in a variety of ways. One of the more tangible representations of cultural connectivity are roadways because they physically connect a frontier population to larger, more important cultural capitals. Kings Canyon Road, running from Carson City to the Placerville Toll Road at Lake Tahoe, was initially constructed shortly after the first Euro-American residences were established in western Nevada. This research highlights how Kings Canyon Road was used to maintain cultural connectivity between frontier populations in western Nevada to the larger social, economic and political arenas of Euro-American culture.

**Hays-Gilpin, Kelley (Northern Arizona University)**

[15] *Sikyatki Style at Pottery Mound: A View from the Hopi Mesas*

Pottery Mound's initial Glaze A ceramic assemblage complex was augmented by an influx of imported Sikyatki Polychrome and other Hopi types in the 1400s, and a "local synthesis"-

glazeware technology with Sikyatki-style decoration. Rather than viewing Sikyatki style in murals, and pottery as a "Hopi" import to Pottery Mound, I suggest a regional stylistic synthesis initiated by innovations in the Western Pueblo area, and accelerated by multi-directional spread of religious organizations through migration, pilgrimage, inter-community recruitment of specialists, and emulation.

**Hays-Gilpin, Kelley [6]** *see* Hegmon, Michelle

**Hayward, Michele (Panamerican Consultants, Inc.), Frank Schieppati (Panamerican Consultants, Inc.) and Michael Cinquino (Panamerican Consultants, Inc.)**

[38] *A View from the Caribbean*

Core/Periphery issues have long been a concern in Caribbean prehistory. Migration into and subsequent dispersion throughout the island chain has traditionally been understood in terms of cultures moving into an island or area followed by a radiation of peoples, ideas or both from the initial location. Ties are maintained between the initial and outlying communities with the strength of those ties largely inversely proportional to the distance between the spheres of influence. Recent investigations involving various material classes point to a more complex interaction of the introduction, spread and integration of cultural elements in this region.

**Headland, Thomas (SIL International) [43]** *Discussant*

**Heath, Gail [36]** *see* Pace, Brenda

**Heath, Margaret [113]** *see* Moe, Jeanne

**Heaton, Ashley (Tulane University) and Stacey Dunn (Tulane University)**

[128] *Hard-to-Find Tools?: Preceramic Lithics of the Norte Chico Region, Peru*

Previous research on the central coast of Peru has yielded little information concerning Preceramic lithic tools; even their identification has proven difficult. New, detailed analysis from 13 sites in the Norte Chico Region, however, has revealed a diverse, expedient tool technology. Using metric and non-metric methods as well as non-chemical sourcing, the authors created a typology through which spatial and temporal patterns are apparent. Present in the assemblages are debris from shaping architectural stones, flake tools, core tools, hammerstones and polishing stones. Neither exotic raw materials nor workshops were identified. These findings show the presence of a small-scale, non-standardized industry.

**Heaton, Ashley [87]** *see* López Bejarano, Jose Maria

**Heckenberger, Michael (University of Florida)**

[43] *Late Prehistoric Agriculture and Political Economy in Southern Amazonia*

Western views of Amazonia as untouched tropical forest or as a unique setting for "primitive" society have been vigorously challenged in recent decades. Archaeological and ethnohistoric evidence suggest that some areas supported large, regional social formations with developed technologies of food production. This paper presents archaeological and remote sensing data from southern Amazonia (Mato Grosso, Brazil), which provides a fairly clear picture of the scale of agricultural and settlement systems and their impact on the tropical forest landscape, c. AD 1250-1650. The nature of pre-Columbian agricultural and political economies among the non-urban complex societies of the region is discussed.

**Hegmon, Michelle (Arizona State University) [97]** *Discussant*

**Hegmon, Michelle (Arizona State University) and Kelley Hays-Gilpin (Northern Arizona University)**

[6] *The Art of Ethnobotany: Depictions of Maize and Other Plants in the Prehispanic Southwest*  
Maize was a staple crop in the Southwest, and it has great ritual and cultural significance to many contemporary Southwestern peoples. However, depictions of maize---and other economically important plants---on prehispanic material culture vary widely in form and frequency. Plants are rare on Mimbres painted pottery, but relatively common on 15th century Hopi pottery and kiva murals. We analyze the distribution of plant depictions across various media, including pottery painting, rock art, and murals, across the Southwest for the AD 1000-1540 period. The changing distribution has implications for gender, ritual organization, and migration histories.

**Heidke, James M. (Desert Archaeology, Inc.)**

[23] *Evaluating the Role of Ballcourts in the Distribution of Sedentary Period Hohokam Pottery*  
Although many students of Hohokam archaeology have argued that ceremonies held at ballcourt



villages facilitated the movement of goods, most have found it easier to make that assertion than to prove it. Here compositional analysis of sand-tempered Middle Rincon phase pottery, and direct evidence of production, is used to identify three villages that specialized in the manufacture of slipped and decorated pottery that was distributed widely throughout the Tucson Basin. Regression analysis of spatial patterning in the temper provenance data, and associated statistical tests, supports the inference that a significant amount of exchange occurred at sites with ballcourts.

**Heitman, Carrie (University of Virginia) and Phil R. Geib (Navajo Nation Archaeology Department)**

[52] *Road Rooms and Ritual Features of the Bluff Great House in Regional Context*

Recent excavations of three rooms within the Bluff Great House in the Northern San Juan region offer new insights into the complex occupation and abandonment of this Chaco Canyon outlier within a changing social landscape. One room provided a sample of an architectural suite of rooms that appear "road related" and constructed during the Chacoan era. Another room revealed an interesting suite of ritual features that may have been used throughout a prolonged period of site use. Using detailed analyses of room construction and stratigraphic sequences, we offer preliminary evidence for shifting regional associations from Chaco Canyon to the Northern San Juan periphery.

**Heitman, Carrie [52]** see *Cubbon, Emily*

**Helmke, Christophe G. B. (Institute of Archaeology, University College London)**

[58] *The Terminal Classic Molded-carved Ceramic Tradition of the Eastern Maya Lowlands*

A separate and discrete Molded-carved ceramic tradition has recently been recognized in the eastern Maya Lowlands of Guatemala and Belize. The ceramic constituents of this tradition are not "Imitation Pabellon" - as has often been held - by exhibiting viable glyphic texts as well as distinct typology, shape, form, modes, pastes, surface treatment, and iconography. The geographic and temporal breadth, as well as the intra- and intersite contexts in which these Molded-carved specimens occur is assessed. Lastly, a case is made for the identification of the social mechanisms and historical agents responsible for the incipience, dissemination, and cessation of this important tradition.

**Henderson, A. Gwynn (Kentucky Archaeological Survey) and Linda S. Levstik (University of Kentucky)**

[113] *K-12 Archaeology Education Evaluation: Discovering What They Learn*

Evaluation is a critical component of archaeology education. Without it, we cannot really know how successfully we've met our learning goals or where improvements need to be made. From formal evaluations, we have learned that teachers and students alike enthusiastically embrace archaeology as a subject of study, and that students understand sites are fragile and deserve to be protected. These evaluations also have shown that students are not always clear about how material culture provides insights into the lives of past people. To be most successful and effective, archaeology education must meet archaeologists' and students' needs.

**Henderson, Gwynn [95]** see *Mink, Philip*

**Henderson, John (Cornell University), Rosemary Joyce (University of California, Berkeley) and Rus Sheptak (University of California, Berkeley)**

[166] *A Long Term View of Settlement in the Lower Ulua Valley, Honduras*

Twenty-five years of research in Honduras' Ulua valley have produced new understandings of social dynamics in the eastern Maya lowlands from before 1600 BC through the colonial period. This paper introduces the chronological framework developed, and outlines patterns of settlement documented for this 2400 sq km valley. It demonstrates that during the Classic period (500-1000 AD), for which the fullest settlement information is available, heterarchical models of social, economic and ritual relationships best correspond to the data. It reviews evidence for brief episodes of greater centralization during the Terminal Classic period followed by persistence of heterarchy in the Postclassic period.

**Henderson, John [166]** see *Joyce, Rosemary*

**Henderson, T. Kathleen (Desert Archaeology, Inc.)**[158] *It's All in the Family: Hohokam Farms and Households on the Salt River Floodplain*

A recent intensive study of Hohokam fieldhouses on the lower Salt River floodplain has found tangible evidence that these sites were the temporary summer dwellings of village-based households. A variety of agriculturally related activities were also documented that, by reference to ethnographic examples, indicated participation by both men and women. The picture that emerged was one of family-managed farms, at least in pre-Classic period times. This paper reviews the evidence prompting these findings, particularly as they relate to the involvement of both genders, and considers the implications of the strong family-oriented signature of life on the Hohokam farm.

**Hendon, Julia (Gettysburg College)**[166] *Social Identity and Practice in the Terminal Classic Community of Cerro Palenque, Honduras*

Cerro Palenque became the largest community in the Terminal Classic lower Ulua valley. Three seasons of excavation have been carried out with the goal of addressing questions of community structure and social identity. Combining the results of this research with those of earlier research at the site sheds light on the ways that the community's residents defined and contested a set of social relations through site design, access to imported resources, and production and use of symbolically significant objects.

**Hendrickson, Mitch (University of Sydney)**[144] *Caution - Roadwork Ahead: Reconstruction and Deconstruction of the Archaeology of the Khmer Road Network*

Stone inscriptions and early colonial accounts have dominated our knowledge of the medieval Khmer road network, which radiated across mainland SE Asia from the capitol of Angkor. Recent survey, excavation and GIS analysis of the archaeological remains of this network expand our perception in two ways: 1) produce an 'accurate' map of the extant road segments using remote sensing imagery (i.e., ASTER, radar, air photos); and 2) breakdown the relationship of the individual elements (i.e., roads, resthouses, water tanks, bridges) of the road network to assess issues of logistics, transportation, and their impact on regional mobility.

**Henrickson, Celeste [162] see Morgenstein, Maury****Henrikson, L. Suzann (University of Oregon) and Montana Long (University of Oregon)**[88] *In Pursuit of Humans and Extinct Megafauna in the Northern Great Basin: Preliminary Results of the Kelvin's Cave Excavations*

Vandalism at Kelvin's Cave recently prompted the BLM to reinstate research at the southern Idaho site where, in 1988, camel, musk ox and horse were found in association with small percussion flakes. In 2004, the University of Oregon conducted further excavations at the site to assess whether a direct association between humans and Pleistocene mammals could be demonstrated. The results of these excavations have provided evidence for a possible connection, including flakes in terminal Pleistocene deposits and green fractured bone. Although no tools were recovered from the cave's lower levels in 2004, subsequent excavations are likely to produce more definitive results.

**Henry, Geneva (The Connexions Project, Rice University) [61] Discussant****Herbstritt, Robert [118] see Branigan, John****Herckis, Lauren (University of Pittsburgh)**[117] *Cuisine in the Oaxaca Barrio, Teotihuacán*

Tlailotlacan, or the Oaxaca barrio, was an ethnic enclave at Teotihuacán. Its distinctly Zapotec flavor is manifested in mortuary practices, architecture, and locally produced ceramics. The presence of Zapotec-style ceramics has been noted since the identification of the barrio, and debates continue as to their chronological persistence and modes of production. Functional analysis and a comparison of presence in Tlailotlacan to other areas of the city can inform as to a culinary complex in the Oaxaca barrio. This paper demonstrates that culinary differences between the Oaxaca barrio and Teotihuacán proper can be identified and discusses some implications of these differences.

**Herhahn, Cynthia (Bandelier National Monument)**[49] *Moving to Live: A Pastoral Mobility Model from the South-Central Andes, Peru*

The organization of mobility strategies are embedded in human societies from nomads to sedentary agriculturalists. While models of hunter-gatherer mobility are well developed, such models for pastoralists are less well developed. I present a model of pastoral mobility adapted from hunter-gatherer studies, but that has aspects unique to pastoralists. I base the model on ethnographic, ethnoarchaeological, and archaeological data from South America, Asia, Eurasia, and Africa, and apply it to an archaeological case from the Titicaca Basin, Peru. I use this model to examine the dynamics of agropastoralism during the Early and Middle Formative of the Lake Titicaca basin.

Hernandez, Christine [72] *see Vail, Gabrielle***Hernández Sánchez, Gilda (Universiteit Leiden)**[152] *"Codex-style" Ceremonial Vessels the Mixteca-Puebla Style*

Here are presented the results of a study of the iconography painted on "codex-style" pottery of the Mixteca-Puebla style, dating from the Late Postclassic period (A.D. 1250-1521), found in several sites in the states of Puebla, Tlaxcala, Oaxaca and Veracruz, Mexico. This iconography is similar to that on the Borgia Group and Mixtec codices. It is suggested that the motifs painted on a large amount of this ceramic formed a pictography, referring to the ceremonial use of the vessels. The most frequent themes represented seem to refer to some of the main ritual activities in Mesoamerica.

Heron, Carl [46] *see Forster, Marcus***Herr, Sarah (Desert Archaeology, Inc.)**[139] *'On the Front Door Steps of the Vast Anasazi Domain:' Pithouse Settlements of the Transition Zone*

Throughout much of prehistory, the transition zone of central Arizona was beyond and between defined archaeological cultures. The rugged landscape of the Mogollon Rim region supports forests and parklands with abundant resources. Studies of past land use show this to be a region of persistent mobility, sometimes used for year round residence, and at other times for seasonal resource exploitation. The advance and retreat of populations created occupational disjunctures. This lack of continuity and limited in-situ cultural development poses significant challenges to our ability to discern the identity of past residents and their relations to surrounding regions.

**Herrmann, Nicholas (University of Tennessee), Donna Freid (University of Tennessee), Nicole Kuemin Drews (University of Tennessee) and Richard Jantz (University of Tennessee)**[151] *Regional Cranial Morphological Variation at the Transition from Paleoindian to Archaic*

Cranial morphological data on Paleoamerican and Archaic samples throughout the United States varies greatly by region. These data are reviewed and examined for regional variation between the Paleoindian and Archaic periods. The limited number of crania that can be classified as Paleoamerican are compared to the regionally diverse Archaic samples to gauge the level of similarity and continuity at the Paleoindian-Archaic transition throughout North America. Issues discussed include interpretive limitations related to sample size, disproportionate distribution of Archaic period samples, and regional variation in temporal boundary identification.

Herrmann, Nicholas [60] *see Ahlman, Todd***Hesse, India (SWCA Environmental Consultants)**[141] *A Middle Archaic Occupation in the Tollgate and Tollhouse Canyons, Southeastern Arizona*

Investigations at sixteen archaeological sites along US 191 in Greenlee County, southeastern Arizona, yielded significant Middle Archaic finds. The sites lie within a unique cultural landscape that connects the San Simon and Safford Valleys to the Gila River uplands through the Peloncillo Mountains. The sites consist of artifact scatters with few diagnostics. One site, however, contained evidence for Paleoindian through Middle Formative occupations. A large Middle Archaic component, including buried Pinto/San Jose series projectile points associated with a grain of maize pollen, was discovered. Radiocarbon dates on bulk soil and mesquite charcoal, and obsidian hydration indicate a time depth of approximately 5000 years.

**Hewitson, Chris [91]** *see Mongelluzzo, Ryan*

**Heydari, Saman [92]** *see Conard, Nicholas*

**Hicks, Brent (ENTRIX, Inc.)**

[162] *Testing Assumptions about the Archaeological Record of Yosemite Valley*

Through the 1990s, several decades of archaeological investigations in the Yosemite Valley of California had led to assumptions that limited interpretation of archaeological sites; these assumptions are archaeologically testable. Led by a newly published research design for Yosemite National Park (Hull and Moratto 1999), archaeological investigations in 2003 and 2004 used a strong geoarchaeological focus to test the validity of those assumptions while providing the Section 106 compliance needed by the Park. The result has brought progress for both the Park's regulatory obligations and research goals applicable to several fields of study, and furthers the multidisciplinary approach to archaeological research.

**Hicks, Pat [94]** *see Perry, Laureen*

**Hilbert, Klaus (PUCRS)**

[156] *Early Holocene Projectile-points from the Amazon*

We intend, besides describing and presenting all known bifacial projectile-points, to discuss the different models of early Holocene peopling of the Amazon area, which uses lithic points as diagnostic artifact in the definition of archaeological cultures.

**Hildebrand, Dean [60]** *see Yang, Dongya*

**Hill, David [48]** *see Minc, Leah*

**Hill, J. Brett (Center for Desert Archaeology), Patrick Lyons (Center for Desert Archaeology) and Jeffrey Clark (Center for Desert Archaeology)**

[97] *Demography, Social Power, and the Dynamics of Identity among Ancient Immigrants*

In our research on migration during the period A.D. 1200-1450, we consider the interplay of structure and agency. Abundant evidence of migration during this interval provides opportunities to explore the dynamics of structure, agency, identity, and power in the context of co-residence. We have found that the scale of migration and the locations of immigrant enclaves are most reliably inferred using a structure-based approach. Following this assessment, an agency-based approach informs on power relations and expressions of identity among immigrants and local groups. We illustrate this two-step methodology using examples from the San Pedro Valley and the Tonto Basin, Arizona.

**Hill, J. Brett [141]** *see Wilcox, David R.*

**Hill, Jane (University of Arizona) [120]** *Discussant*

**Hill, Mark (Washington State University)**

[40] *Late Archaic Copper Procurement and Production in the Southern Lake Superior Basin: An Example from the Duck Lake Site*

Recent research has begun to identify sites associated with Archaic period procurement and production of copper artifacts in the southern Lake Superior Basin. Dating to approximately 3400 BP, the Duck Lake site represents one such site. Lithic analysis demonstrates a strong reliance on distant lithic sources, suggesting that site occupants were involved in a larger regional system encompassing portions of the southwestern Lake Superior basin and upper Mississippi Valley. One interpretation of the lithic data is that copper was procured by logistical task groups that traveled to the site from the south as part of a direct procurement strategy.

**Hill, Richard (BLM-Upper Snake) and Carolynne Merrell (ARCHAEOGRAPHICS)**

[36] *Lava Tube Caves of the Eastern Snake River Plain and Related Archaeology*

During the past three to four million years lava flows formed the landscape of the Eastern Snake River Plain. Flows created tubes filled with molten material and left behind underground basalt channels and passages when the lava ceased to flow. Tubes collapsed and formed caves, creating habitat and shelter for plants and animals. From 1999 to 2002 BLM's Upper Snake Field Office recorded and evaluated over 240 caves in Southeast Idaho. Over 60 caves have associated archaeological materials and features. The Field Office is entering this data into the Archaeological Survey of Idaho (ASI) database.

**Hill, Richard [36]** *see Rodman, Julie-anna*

**Hill, Jr., Matthew E. (University of Arizona)**[2] *Long-term and Regional Changes in Use of Bison*

Bison was a major resource utilized by Paleoindian foragers throughout the mid-continent of North America; however, the nature and intensity of the exploitation of bison was not static. This paper examines synchronic and diachronic variability in predation strategies and processing intensity of bison across space and through time. Changes in bison utilization will be examined within the context of long-term and regional changes in human diet breadth, group mobility, and employment of extractive technology.

**Hilton, Michael (USDA Forest Service)**[118] *The Use of GIS Applications to Define Site Boundaries in Wide-Ranging Areas of High-Density Cultural Distributions*

Areas of widespread but irregularly distributed cultural deposits create complex challenges when attempting to delineate site boundaries. Archaeologists frequently determine site limits by subjective cognitive processes based primarily on personal preferences. In this paper I demonstrate the utility of using GIS applications to enhance objectivity and facilitate the decision-making process. Employing a case study from Inyo National Forest, California, I evaluate different scenarios using an identical data set, and I discuss the implications that each strategy may have on subsequent management policies.

**Hintzman, Marc (University of California, Riverside Lithic Technology Laboratory)**[76] *A Comparison of Ground Stone Tool from the American West and the Middle East: Reamers or Pestles*

This research will compare one class of artifacts recovered from Ain Ghazal, Jordan to similar artifacts from the American Southwest and Coastal California. The goal is to identify the function of the artifacts from Ain Ghazal and in turn, identify the behavior behind the tools.

**Hirshman, Amy J. (Michigan State University)**[91] *Tarascan Ceramic Production: Ceramic Paste Evidence From Urichu, Michoacan, Mexico*

Theories regarding the emergence of complex societies expect changes in the organization of craft production—including ceramic production—with the formation of states. The Late Postclassic Tarascan state is a likely candidate for such reorganization. Distinctive elite Tarascan ceramics indicate great skill and ethnographic work at the former Tarascan capital of Tzintzuntzan reveals a vibrant and entrenched ceramic tradition. However, diachronic and spatial research involving archaeological ceramics and soil samples from the site of Urichu, Michoacan, Mexico, indicate little change in the organization of ceramic production concurrent with the emergence of the Tarascan state.

**Hirth, Kenneth (Penn State), Mari Carmen Serra Puche (Coordinación de Humanidades-UNAM) and Jesús Carlos Lazcano Arce (Escuela Nacional de Antropología e Historia)**[149] *The Technology of Late Formative Lapidary Craft Production at Xochitecatl-Nativitas, Tlaxcala, Mexico*

Archaeological excavations at the site of Xochitecatl-Nativitas uncovered evidence for lapidary craft production in a non-elite residential context dating to the Late Formative period. This paper examines the technological evidence for lapidary craft production at this site and explores its significance for understanding the production of sumptuary goods and the origins of craft production in Central Mexico.

Hirth, Kenneth G. [149] see De Leon, Jason

**Hixson, David (Tulane University / NASA-SSC) and Aline Magnoni (Tulane University)**[12] *Coming of Age in Yucatan: From Pacing to Remote Sensing in the Settlement Pattern Studies of Chunchucmil*

For the past decade, survey crews have taken advantage of the exemplary surface visibility around the Classic Maya site of Chunchucmil to create maps of even the most diminutive features without the need for extensive clearing or expensive equipment. Now, this robust data set is being combined with the latest remote sensing, GIS and 3D visualization software to improve our ability to detect, analyze and predict the location of archaeological features at various scales. This presentation will discuss the transition from low-tech to high-tech data sets, including our use of LANDSAT, AIRSAR, GIS and 3D reconstructions for settlement pattern studies.

**Hoag, Elizabeth (SUNY Albany)**

[64] *Exploring Small and Large Scale Social Identity in Preclassic to Classic Mixtequilla, Veracruz, Mexico: A Ceramic Style Study*

Large-scale expressions of identity have often been described and interpreted through the use of style-zone models of interaction. Against the backdrop of increasing political centralization, changing political organization, and shifting settlement patterns, I look to identify local expressions of identity within the Mixtequilla settlement region of Veracruz, Mexico. Data collected from decorative and technological ceramic styles are used to identify information regarding small-scale identity and social boundaries including the intersection of these smaller social groups and the larger regional identity. Results from this study help to shed light on the social organization present in the Mixtequilla region of Veracruz as well as present useful techniques for identifying social identity.

**Hoard, Robert J. (Kansas State Historical Society), Donna C. Roper (Kansas State University), Robert J. Speakman (Missouri University Research Reactor), Michael D. Glascock (Missouri University Research Reactor) and Anne M. DiCosola (Southern Illinois)**  
[27] *Central Plains Tradition Pottery Style Distribution and its Correlation with Chemical Composition as Determined by Using Neutron Activation Analysis*

Our observations suggest that the stylistic variability of western Central Plains tradition (CPT) pottery from Kansas, Nebraska, Colorado and Wyoming is greater across drainages than it is along drainages. This has implications for evaluating the interaction among CPT communities. We used neutron activation analysis to determine compositional similarities and differences among pottery sherds from western CPT sites, identifying eight compositional groups. While one compositional group includes several sites from northwest Kansas and southwest Nebraska, distinct compositional groups for several other sites indicate limited movement of pottery between these sites and tentatively corroborate our ideas about the direction of population connections.

**Hockett, Bryan (Bureau of Land Management)**

[88] *Nutritional Ecology of Late Pleistocene Adaptations in the Great Basin: Zooarchaeological Evidence from Bonneville Estates Rockshelter*

Thousands of Late Pleistocene-aged faunal specimens have been found associated with multiple hearths, spear points, and perishables at Bonneville Estates Rockshelter (BER) in eastern Nevada. Late Pleistocene foragers there hunted a diversity of terrestrial vertebrates and waterfowl such as pronghorn, rabbits, and ducks. Regional patterns of site densities suggest that post-Younger Dryas human populations were increasing in the Great Basin compared to earlier (e.g., Clovis) occupations. The nutritional ecology model suggests that increases in human populations should be associated with increasingly diverse diets, and that is precisely the pattern we see for the Late Pleistocene occupations at BER.

**Hodder, Ian (Stanford University)** [126] *Discussant*; [89] *Discussant*

**Hodgetts, Lisa (The University of Western Ontario)**

[9] *The Prehistoric Hunting Landscape of Varangerfjord, North Norway*

This paper explores the social and physical elements of landscape and their relationship to hunting strategies along the coast of Varangerfjord, northern Norway. The region contains evidence of intensive occupation by semi-sedentary hunter-gatherers approximately 4000 years ago. Analysis of faunal assemblages from house features at three sites indicates strong intra-site similarities in the exploitation of different species. Marked differences in faunal exploitation are observed between sites, and appear to relate to local micro-environments. This suggests not a stratified society, as previously argued for the region, but egalitarian groups exploiting fairly restricted areas from each site.

**Hodgins, Greg (University of Arizona)** [155] *Discussant*; [160] *see Haas, Herbert*

**Hoekman-Sites, Hanneke A. (Florida State University)**

[46] *Using Residue Analysis to Confirm Trade Connections at Pella, Jordan*

Chemical analysis of residues from sherds discovered at Pella of the Decapolis (Jordan) was conducted to examine how the role of the site changed over time. Gas chromatography/mass spectrometry (GC/MS) was used to analyze compounds extracted from 43 Late Byzantine and Medieval sherds. Instead of identifying all possible residues, this study utilized biomarkers to identify specific plant species. Results uphold the view of Pella as a trade center during Byzantine times and suggest trade connections with China and Europe. In the Medieval Period, Pella

seemed to have lost its position as a trade center as only local goods were found on Medieval sherds.

**Hoffecker, John (Institute of Arctic & Alpine Research), M. V. Anikovich (Russian Academy of Sciences), A. A. Sinitsyn (Russian Academy of Sciences) and Vance Holliday (University of Arizona)**

[62] *Below the Ash: Earliest Upper Paleolithic in Eastern Europe at Kostenki*

The earliest Upper Paleolithic artifacts in Eastern Europe are found at Kostenki on the Don River below a volcanic ash now identified as the Campanian Ignimbrite Y5 tephra (dated by Ar/Ar to ca 40 ka). The assemblages contain tools on prismatic blades, ivory and bone implements, possible figurative art, and ornaments. The last include specimens perforated with use of a rotary drill and shells imported more than 500 km from their source. Although human skeletal remains below the ash are confined to isolated teeth, the assemblages apparently were produced by the earliest modern humans in Eastern Europe.

**Hohmann, John W. (The Louis Berger Group, Inc.)**

[63] *From Saints to Sinners: The Archaeology and History of the Old Las Vegas Mormon Fort*  
Founded in 1850, the Old Las Vegas Mormon Fort represents the first permanent settlement in southern Nevada by Euro-Americans. Thus, this massive adobe fort represents not only a strategic Mormon mission located along the southern route to California, but also the first place of sustained contact and interaction between Euro-Americans and Native Americans. Eight years of historic research and archaeological excavation has accumulated a treasure trove of data and insight into early Mormon settlements in the Western United States.

**Holdaway, Simon (University of Auckland, New Zealand) [84] Discussant**

**Hollenbach, Kandace (UNC-Chapel Hill)**

[145] *Beyond Nuts and Fruits: The Role of Gatherers in Late Paleoindian and Early Archaic Foraging Groups in Northwest Alabama*

Gatherers contribute significantly to the economies of foraging groups, often providing more than half the diet through their efforts. Their influence extends beyond foodstuffs, affecting mobility patterns, settlement decisions, and relations with the local landscape. In this paper, I present analyses of plant remains from five rockshelter sites in northwest Alabama. I compare the mobility patterns required to obtain plant, animal, and stone resources, and use these comparisons to discuss the role of gatherers - most likely women, children, and the elderly - in Late Paleoindian and Early Archaic groups living within the region.

**Hollenbach, Kandace D. [95] see Pike, Meta G.**

**Hollenback, Kacy (University of Arizona) and Barbara Mills (University of Arizona)**

[98] *Ceramics and Mobility in the Early Pithouse Period of the Mogollon Rim Region*

In the Greater Southwest, research on early ceramic assemblages is tied to increasing labor demands for agricultural production, residential mobility, and wide networks of social interaction. Using collections from Early Pithouse Period sites (AD 200-600), especially the Hall Point Site, we analyze ceramic technological variation to understand the mobility of early farmers in the Mogollon Rim region. Two primary objectives are to understand intrasite occupational histories and the scale of regional interaction. The broader implication of this study is an understanding of the movements of people across highly permeable boundaries during the early ceramic period.

**Holliday, Vance [62] see Hoffecker, John**

**Hollinger, R. Eric (Smithsonian Institution)**

[102] *Repatriation as Applied Anthropology at the Smithsonian Institution*

All aspects of the repatriation process, from the consideration of indigenous perspectives to documentation of claimed remains and objects, are applied anthropology. Assessment of human remains and objects necessitates the use of anthropological approaches to archival and records-based research, inventory, description, and documentation of osteological, archaeological, and ethnological collections. Determination of cultural affiliation also requires critical evaluation of geographical, linguistic, oral tradition, historical, archaeological, and other relevant evidence. Finally, the process culminates with cooperatively implementing ultimate dispositions of affiliated remains and objects. At the Smithsonian and elsewhere, anthropology applied in these real-world legal and social contexts becomes the repatriation process.

**Hollowell, Julie (Indiana University)**[107] *The Many Faces of Stewardship: From Subsistence Diggers to the Art World*

Professional archaeologists are not the only ones who envision themselves as stewards of the material and intellectual remains of the past. Based on research with subsistence diggers and collectors involved in a legal market for antiquities, I dig into the arguments used by various interests to legitimate notions of stewardship in relation to the archaeological record. This raises questions about stewardship by whom, of what, and for what purposes as well as concerns about exclusionary practices. How might archaeologists consider approaching this contested terrain if the goal is to protect what remains of the archaeological record?

**Hollowell, Julie (Indiana University) [61] Discussant****Homsey, Lara K. [95] see Pike, Meta G.****Honanie, Doris [74] see Gumerman IV, George****Honeychurch, William (Smithsonian) and Chunag Amartuvshin (Mongolian Institute of Archaeology)**[125] *Emergence through Breakdown: Political Uncertainty and the Rise of Nomadic States*

The emergence on the Inner Asian steppe of regional confederacies of pastoral nomads has figured prominently in the early historical records of China and other Old World states. Surface survey at the Gobi desert site of Baga Gazaryn Chuluu provides preliminary evidence that the first nomadic polities arose as the result of competition between Early Iron Age centers, fluctuating networks of exchange, and patterns of political sustainability and risk. This paper provides preliminary survey results from northern and southern Mongolia on the local transitions leading to the Xiongnu regional polity of the first millennium BC.

**Hood, Larkin (University of Washington)**[95] *Testing Models of Hunter-Gatherer Ceramic Vessel Use: A Comparison of Three Sites in the American Southeast*

Traditional models characterize ceramic vessels as tools of food processing and/or storage, associated with food production and sedentary behavior. The archaeology of the Late Prehistoric American Southeast (AD 950-contact) provides many examples of groups using pottery in contexts of food production and high degrees of sedentism. An analysis of sherds from three Late Prehistoric hunter-gatherer sites on the upper Texas coastal plain provides data to challenge these traditional conceptions of vessel function. These data are used to provide alternative explanations of vessel use in relatively mobile hunter-gatherer societies. The implications for modeling hunter-gatherer evolution are discussed.

**Hoog, Philip (Northern Arizona University)**[74] *Open Doors, Open Minds: A Museum's Role in Maintaining Indigenous Cultural Heritage*

This paper examines the changing role of museums in matters concerning indigenous cultural heritage. Many American Indian nations place great emphasis on achieving tribal sovereignty and cultural awareness for their own people and the general public. As public institutions housing multitudes of indigenous artifacts, many museums must choose how to store, display, and control access of these items in light of changing laws and requests from indigenous people, many of whom have or wish to form their own museum. Cooperation with indigenous communities can lead to strong relations benefiting both indigenous concerns and educational goals of many museums.

**Hoopes, John (University of Kansas)**[38] *Of Shamans, Priests, and Wizards: Archaeological Approaches to the Identity of Magical Agents in Ancient Costa Rica, Panama, and Colombia*

Southern Central America and northern South America are routinely identified as peripheral to Mesoamerica and the Central Andes. Magic workers, including wizards, witches, and magicians, have been relegated marginal status in the construction of archaeological identities. This paper will examine the value of alternative identities for the interpretation of agency in mortuary assemblages and iconography. In the vein of recent critiques of the identification of shamans and shamanism by Kehoe (2000) and Klein et al. (2002). Focusing on the region characterized by Chibchan speakers, it will suggest methods for identifying groups who exploited a 'peripheral' status within a cultural 'periphery.'

**Hoopes, John (University of Kansas) [37] Discussant**



**Hoppe, Kathryn A. (University of Washington)**

[2] *Using Isotopic Analyses of Bison Bones and Teeth to Reconstruct Migration Patterns*

Because the isotopic ratios of animals vary with environmental conditions, isotopic analyses of bones and teeth may help to reconstruct an animal's migration patterns. I have analyzed the carbon and oxygen isotopes of modern bison from across the United States. The average oxygen isotopic ratios of bison populations vary by ~ 11 ‰ and closely reflect the average values of local surface waters. The average carbon isotopic ratios of bison vary by ~10 ‰ and are closely related to the C-3/C-4 ratio of local grasslands. These results can be used as a baseline to interpret the isotopic ratios of prehistoric bison.

**Horton, Beth (Washington State University) and Christina Rieth (New York State Museum)**

[124] *Style, Technology, and Ceramic Variation: Late Prehistoric Pottery Manufacture in Central New York*

Non-invasive attribute analyses suggested differences in firing techniques and vessel construction of thirteen pottery types recovered during mitigation of a Late Woodland agricultural hamlet in Central New York. Technological attribute analyses conducted on these materials indicate that the vessels represent a highly homogenous population in construction. If a variety of stylistic techniques are being employed by a close-knit community of women, then style itself may have deeper meaning than group identification among Pre-Contact populations. Therefore, standard non-invasive attribute analyses may not be sufficient to determine the nature of Iroquoian pottery usage.

**Horvath, Ildiko (McGill University, Department of Anthropology)**

[44] *From Lithic Technology to Human Behavior: Understanding the Middle to Upper Paleolithic Transition in Romania*

Long-standing archaeological research in Romania and an array of new findings have firmly established the important role the Carpathian region played in human cultural and biological evolution during the Middle to Upper Palaeolithic transition. This paper builds on technological analysis of early Upper Palaeolithic lithic assemblages in Northeastern Romania to research behavioural changes and continuity between the Middle and the Upper Palaeolithic and connections between this region and neighboring areas.

**Hosler, Dorothy (MIT)**

[42] *La Barranca de Las Fundiciones: Mesoamerica's First Metal Smelting Site*

Ancient Mesoamerica engendered a technically complex and now well-documented metallurgy around 600 AD. The lacuna concerns metal production sites: where and who were the peoples that mined, processed, and fashioned these copper and bronze objects and how did they carry out their smelting and production regimes? The richest, most remote, and most complex of the sites identified in a 1998 survey is Las Fundiciones, located in the Guerrero's Sierra Madre del Sur. I will report on several seasons of excavations at Las Fundiciones, presenting data concerning dates, architecture, ritual, smelting technologies, and possible social affiliations.

**Hostenske, Mary (Kenyon College) and Jocelyn Anthony (Kenyon College)**

[129] *Borrowing to Build: Spatial Organization in the Las Canoas South Group*

Excavations in the southern portion of the Classic period (A.D. 600-800) center of Las Canoas demonstrate extensive topographic modification and dramatic changes in the use and structuring of space. Borrow pits created in the extraction of clay for early ceramic production were filled with ash, potstands, and other production debris to create a level surface on which later buildings were placed. In contrast to earlier buildings, these structures appear to have been associated with small-scale figurine production and other activities. Evidence for the nature and timing of these shifts is presented, and their social and political implications are considered.

**Hostenske, Mary** [129] *see Pino, Michelle*

**Howard, Steven (The Ohio State University)**

[38] *Northeastern Incarnations of Adena-Hopewell*

The traditions associated with the Ohio Adena and Hopewell influenced a diverse range of groups across Eastern North America. While very limited data is available from the northeastern region, evidence indicates that local interpretations of the Adena-Hopewell phenomenon vary widely. Mound mortuary material, virtually the only data available, reveals that unique characteristics are more prevalent than those shared, even in proximal sites. Rather than blindly following the Ohio traditions, the northeastern participants seem to have molded them to fit their various lifestyles.

The groups of the region are not homogeneous, and should not be lumped together under the term "New York Hopewellian."

**Howell, R. Emerson [22]** *see Blythe, Ashley A.*

**Howie, Linda (University of Sheffield), Terry Powis (Kennesaw State University) and Elizabeth Graham (University College London)**

[148] *Can You Judge a Pot by Its Colour? Typological Groupings under the Microscope at Lamanai, Belize*

Type-variety analysis of pottery assemblages is credited in Maya archaeology with the capacity to elucidate patterns of ceramic production and consumption. Implicit are two assumptions or hypotheses: 1) That style and surface appearance bear a significant relationship to production technology and provenance; 2) That a typology based primarily on style and surface appearance retains meaning when production technology and provenance are accounted for. These hypotheses will be tested using Preclassic, Protoclassic and Terminal Classic assemblages at Lamanai by comparing independent inferences made about production technology and provenance based on microscopic ceramic variation with criteria of style and surface appearance.

**Howlett Hayes, Katherine (University of California, Berkeley)**

[114] *Ballast Flint and Bottle Glass: Intersections of Lithic Analyses and Colonial Archaeology*

Lithic analyses are generally considered to be in the province of prehistorians, little utilized by historical archaeologists who assume that stone-knapping ceased to be practiced in the colonial/Contact period and after. Lithic tools are very often recovered from colonial sites, but not recognized as anything more than debitage. As such lithics are infrequently queried for indications of persistence and change in such practices. This paper presents a case study from Sylvester Manor, a colonial plantation in New York that employed Native American and enslaved African labor, where re-use of European materials like flint and glass illustrates the diversity of technical practices in a creolizing environment.

**Hranicky, Wm Jack (Virginia Academic Press)**

[106] *All Prehistoric Technology Flows from the Southeast?*

Paper discusses blade technology as viewed from southern Virginia and North Carolina. Based on the Cactus Hill site, the paper discusses the presence of blades that show early signs of fluting, basal grinding, and the lanceolate form. They are argued as being pre-Clovis. The slate-rhyolite of the area provides thin straight blades that are argued as being based on transatlantic migrations to the Southeast in post 20,000 years BP. Paper illustrates 60+ Cactus Hill (Elys Ford) points and argues their pre-Clovis and parallel usage in the Clovis era. Also, a plano-convex point is presented which may complicate its being argued as a Plains-developed/oriented type. Fluted (single-sided) blade lanceolate points are defined and argued as being "the front porch to the Clovis floor technology."

**Hruby, Zachary X. [91]** *see Kovacevich, Brigitte; [152]* *see Mesick, Cassandra*

**Huaman, Luis (Universidad Peruana Cayetano Heredia), Karen Ventura (Universidad Peruana Cayetano Heredia), Erika Paulino (Universidad Peruana Cayetano Heredia) and Liliana Zegarra (Universidad Peruana Cayetano Heredia)**

[128] *Palynological and Botanical Studies from the Proyecto Arqueologico Norte Chico, Peru*

Palynological and botanical studies associated with the Proyecto Arqueologico Norte Chico (PANC) are based on data from the lower Pativilca and Fortaleza Valleys. Initial analysis of samples from six Preceramic sites reveals the presence of pollen from maize, guava, cotton and other species. Pollen is being derived from 466 species of wild and cultivated plants of Peru provided by the herbarium of the Field Museum, based on a convenio between the museum and Cayetano Heredia University. The results constitute an important collection of floral remains from the coast of Peru.

**Huang, Jennifer (Arizona State University) and Connie Stone (Bureau of Land Management)**

[69] *Images, Origins and the Perry Mesa Tradition: A Comparative Study of the Rock Art of Baby Canyon Pueblo*

While little orderly excavation has been performed in the Agua Fria National Monument to date, a recent rock art recording project has begun the large task of data collection on petroglyphs in this area. One central research question dominates the others: who were its prehistoric inhabitants

and from where did they aggregate onto Perry Mesa? A rich collection of rock art imagery at Baby Canyon Pueblo offers clues to this enigmatic problem. This poster presents a comparative study of rock art at PIII-PIV habitations around Arizona, a preliminary investigation to begin narrowing down the origins of the Perry Mesa Tradition.

**Hübbe, Mark [7]** see *Neves, Walter A.*

**Huber, Edgar K. (Statistical Research), Jonathan Damp (Zuni Cultural Resource Enterprise) and Carla R. Van West (Statistical Research)**

[139] *Pithouse Community Development in the Zuni-Quemado Region*

Pithouse communities are poorly known in the Zuni-Quemado region of the Southwest, but some of the best known Early Formative period settlements lie along drainages within the Upper Little Colorado River watershed. Architectural variability, settlement distribution, mobility patterns, and environmental correlates are used to infer aspects of community organization for the A.D. 200 to 900 period.

**Huckell, Bruce B. (University of New Mexico)**

[56] *McEuen Cave and the Origins of Southwestern US Agriculture*

In 1997 and 2001, excavations were undertaken in McEueri Cave, east-central Arizona, to investigate the development of preceramic farmer-forager economies in the region. Two periods of preceramic, Early Agricultural Period occupation were recognized, the earlier of which dates to approximately 3600 rcybp and therefore provides new insights into the beginnings of maize-squash cultivation in the region. The geomorphic and ecological setting of the shelter is described, and the stratigraphic record of the shelter is presented. Current understanding of the environmental and cultural context of cultigen adoption in the Southwest is reviewed and the McEuen Cave record is placed within that context.

**Huckell, Lisa W. (Maxwell Museum/UNM)**

[56] *The Paleoethnobotanical Record From McEuen Cave, East-Central Arizona*

Excavations at McEuen Cave in 1997 and 2001 demonstrated that, despite decades of vandalism, intact deposits and botanical items of considerable importance remained. Multiple direct AMS dates on maize, squash, and little barley clustered around 3600 rcybp, placing them at the Middle Archaic/Early Agricultural Period boundary. Topics to be discussed include the nature and composition of the botanical assemblage; the cultigen record, with emphasis on a morphometric profile of the maize and its spatial/temporal relationships with contemporaneous populations; and the contribution of McEuen Cave to questions of the timing of the arrival of agriculture and its adoption in the American Southwest.

**Huckell, Lisa [67]** see *VanPool, Christine*

**Huckerby, Cheryl L. (Department of the Army, Fort Hood, Texas)**

[138] *Archaeological Resource Damage: The Hidden Price Paid*

Federal land managers deal with various impacts on archaeological resources ranging from hikers to military training with heavy tanks. Compounding these known activities are unknown activities such as vandalism and looting. When applying the Archaeological Resources Protection Act (ARPA) to assess damage, the land managers take into account a suite of variables to assess the cost of damage. This paper discusses those variables that are not often considered until we actually implement restoration/mitigation of the damage or reach the courtroom and are faced with the question "why are these rocks important to our history?"

**Huckleberry, Gary**

[82] *Relating Past Floodplain Changes to Archaeology along the Santa Cruz River, Tucson, Arizona*

The Santa Cruz River in southern Arizona is the best stratigraphically documented river in the American Southwest. Several episodes of valley entrenchment and channel shifts have been radiocarbon dated and related to past changes in human settlement patterns in the Tucson Basin. However, recent studies suggest that different reaches of the river respond individually to external and internal forces resulting in variable floodplain changes. I will summarize previous geoarchaeological research on the Santa Cruz River and present new stratigraphic data that adds to our picture of a dynamic fluvial system linked to indigenous agriculture and settlement in the desert Southwest.

**Huckleberry, Gary [82]** see *Mabry, Jonathan*

**Hucko, Bruce [34]** *Discussant*

**Hudson, Erin (Georgia State University)**

[22] *Corn and Chiefs: Agricultural Potential and Emergent Complexity in a Great House Community*

The Blue J great house community in the Red Mesa Valley, New Mexico is an ideal location to study the connection between resource inequities and emergent complexity due to extensive archaeological research and because it consists of six distinct "neighborhoods." Incorporating GIS, soil studies, and excavation data, I consider differential access of the neighborhoods to the best farmland. Highly productive farmland, coupled with a relatively stable environment, may have led to relatively few economic and social inequities within the community. This, in turn, inhibited the construction of a characteristic great house. This research has implications for understanding the Chaco phenomenon.

**Hudson, Jean (University of Wisconsin, Milwaukee)**

[156] *Ecological Perspectives on Animal Symbolism: A South American Case Study*

There is often something of a theoretical war between archaeologists who see the zooarchaeological record as a reflection of ecology and those who see it as a reflection of ideology or social agency. The former tend to disdain studies that lack explicit tests of hypotheses with measurable data, while the latter tend to disdain studies that reduce human behavior to biology or predictive formulae. This study attempts to bridge these extremes and link ecological and ideological behaviors. It argues that ecology helps to explain the symbolic importance of certain types of fauna, and that this can be tested cross-culturally. Coastal Peru is used as a case study.

**Huff, Valerie (University of Cincinnati)**

[147] *Pressing Change: Press Coverage of Cemetery Disturbances in Cincinnati, Ohio*

Development, community change, theft, and poor management practices impact historic cemeteries in Cincinnati, Ohio. While some cemeteries receive repeated press coverage, exposure of wrongdoing does not always result in better stewardship. Poor financial and physical management have affected Wesleyan Cemetery, and in 1992, people reported bone and discarded dirt piles on the grounds. At Carpenter's Run Pioneer Cemetery in Blue Ash, a wealthy suburb of Cincinnati, several burials were moved due to infrastructure improvements. Though damage to these sites is similar, articles about the impacts have different tones. This paper compares the damage and press coverage of these cemeteries.

**Hull, Kathleen L. (Statistical Research, Inc.)**

[114] *The Archaeology of "Indirect" Culture Contact*

The processes of "contact" between native and non-native people in North America often began prior to face-to-face encounters or direct involvement of native people in colonial institutions. This is particularly relevant with respect to the introduction of non-native diseases through down-the-line transmission. As a result, the cultural consequences of "contact" played out in traditional social and natural settings but likely involved circumstances uncommon to short-term native history. This presents methodological challenges to archaeologists, necessitating a long-term view culture change and appreciation for process of contact as one of the last events contributing to patterns we see in the archaeological record.

**Hull-Walski, Deborah [102]** *see Bruemmer, Betsy*

**Hulse, Eva (University at Buffalo)**

[38] *Interaction in Late Stone Age Finland*

Archaeological research in Fennoscandia often focuses on the origins and spread of agricultural technology. Sometimes one gets the impression that non-agricultural cultures of the Late Stone Age lay on the periphery of a dynamic agricultural zone. Recent archaeological research on the northern coast of the Gulf of Bothnia suggests that non-agricultural Stone Age people must not be studied as peripheral to agriculture. They are, of course, at the core of their own kinds of economic, technological, and social accomplishments.

**Hunley, Keith L. [7]** *see Cabana, Graciela*

**Hunt, Terry L. (University of Hawaii)**

[80] *Research on the Evolution of Cultural Elaboration on Rapa Nui (Easter Island)*

Recent research has refined methodological aspects and empirical expectations for models to

explain the evolution of cultural elaboration ("waste") in uncertain environments. A consistent realization, however, is that business-as-usual will not suffice in demands of empirical sufficiency. Rapa Nui provides a dramatic case-in-point. Ancient per capita investment is among the greatest known, yet many basic archaeological and palaeo-environmental issues remain unresolved. In this paper I outline the challenges of field research design to evaluate models for the evolution of cultural elaboration on Rapa Nui. The models appear to have much to offer in explaining the island's extraordinary prehistory.

**Hunt, Terry [57]** *see O'Leary, Owen*

**Hunter, Andrea A. (Northern Arizona University)**

[74] *A University Program of Study: Indigenous Cultural Resource Management*

In conjunction with the Anthropology Department, the Applied Indigenous Studies program at Northern Arizona University now offers a new emphasis for undergraduates, Indigenous Cultural Resource Management. The curriculum includes anthropological and archaeological method and theory, fundamentals of cultural resource management, museum studies, Native American history, Native American contemporary cultures and associated issues, and cross-cultural communication and consultation. Although American archaeology for the most part, has been grounded in the paradigms of Western science, our Indigenous CRM program includes Native science as an equally valid approach to studying the past and protecting sacred areas and landscapes.

**Hunter, Andrea (Northern Arizona University) [102]** *Discussant*

**Huntington, Fred [158]** *see Harry, Karen*

**Huntley, Deborah (Southwest Archaeological Consultants) and Andrew Duff (Washington State University)**

[48] *Scales of Interaction and Identity in the Zuni and Upper Little Colorado Regions*

Archaeologists have long recognized a cultural connection between Pueblo IV (A.D. 1275-1400) populations in the Zuni region of west-central New Mexico and the Upper Little Colorado region of east-central Arizona. Analysis of ceramic exchange using INAA provides tangible evidence of social connections of differing intensity within and between these regions. Emphasizing the nature and intensity of social interactions, we focus on identification of the various scales at which individuals and groups defined social identity.

**Huntley, Deborah L. [69]** *see Kulow, Stephanie; [94]* *see Habicht-Mauche, Judith A.*

**Huntly, Nancy (Idaho State University), Kim Gilliland (Idaho State University), Jonathan Knudsen (Idaho State University), Spencer Wood (UBC) and Roly Russell (Oregon State University)**

[71] *Investigating the Effects of Ancient Village Locations on Modern Ecological Dynamics*

Prehistoric and historic village sites are abundant on the Lower Alaska Peninsula and differ strongly from nearby areas of maritime tundra in having higher vegetational diversity and productivity and higher abundance of plants that are of cultural important to the Aleut as food, medicines, or for household uses. Village sites also are common along the coast of Sanak Island, but differ radically in vegetation from those on the Lower Alaska Peninsula, associated with the introduction of cattle and foxes through the human economy of Sanak. Non-native plants are abundant on Sanak, though rare on the Lower Alaska Peninsula, and the difference in vegetation between village sites and adjacent areas that have not been sites of settlements are much smaller than those on the Peninsula. We will present detailed analyses of the effects of Aleut villages on terrestrial plants and animals of the Lower Alaska Peninsula and Sanak Island, and on the intertidal community of Sanak Island, and will compare the influence of nearby ancient or recent villages on terrestrial and intertidal ecosystems.

**Huntly, Nancy [71]** *see Maschner, Herbert*

**Hurst, Stance (University of Oklahoma) and Brian Carter (Oklahoma State University)**

[27] *Excavation at the Howard Gully (34GR121) Early Holocene Bison Kill Site: A View into Hunter and Gatherer Interactions*

The Howard Gully site (34GR121) is an early Holocene bison kill/processing area located in southwestern Oklahoma. Results from the archaeological and geoarchaeological analysis of the site are presented. Two late Paleoindian style projectile points found at the site are compared to projectile point data from other early Holocene excavated contexts and surface collections.

Stylistic data from the projectile points is used to determine whether social boundaries developed on the Southern Plains. The study provides revealing information of how Us vs. Them or group identity may have first formed in lower population settings.

**Hurst, Winston**

[52] *A Changing Pueblo II/III Ritual Landscape in Comb Wash, San Juan County, Utah*  
Changes in the distribution of habitation sites and interpretive features suggest significant changes in community and landscape organization between the Pueblo II and Pueblo III periods in the Comb Wash locality of southeastern Utah. The location of community center facilities appears to have changed, and the configuration of formal roads suggests a possible change from a regional to a more local integration system.

**Hurst, Winston** [52] see Osburn, Tiffany

**Hurtado Cen, Araceli (UADY), Aleida Cetina Bastida (UADY) and William Folan (UAC)**

[72] *Sacred Spaces and Human Ritual Placings in Postclassic Champoton, Campeche*  
The present study investigates the ancient Maya mortuary ritual complex resting on the material evidence from a multiple burial context from the Postclassic site of Champoton, Campeche. The application of the taphonomic principles derived from the French school of the "Anthropologie du terrain" leads to reconstruct the assemblage's depositional sequence and to infer on the potential ritual practices carried out at the site. By correlating this evidence to the information from other regional contexts, we aim at outlining the more general ritual processes followed by the Maya society during the Postclassic period.

**Hutmacher, Sonia (SWCA, Inc. Environmental Consultants)**

[105] *Holocene Valley Infill and the Search for Paleoindian Sites: Results of Geomorphological Investigations of Eastern Great Basin Hydromorphic Features*

Approximately 70 sites containing Paleoindian diagnostic artifacts have been identified in the eastern Great Basin. Most of these sites are located either in valleys or in the upland areas of mountain ranges. In an effort to explain why Paleoindian sites have not been identified within valley bottoms, geomorphological analyses and radiocarbon samples were taken from archaeological excavations within the Great Basin. The resulting variation in ages, in conjunction with the depths at which the samples were exhumed, suggests that significant Holocene sediment infill has taken place within the valleys. Thus, surviving Paleoindian aged sites may be deeply buried.

**Hutson, Scott (University of California, Berkeley), Bruce Dahlin (Howard University) and Daniel Mazeau (SUNY Buffalo)**

[116] *Household Economy and Exchange among the Classic Period Maya: Recent Findings from Chunchucmil, Yucatan*

Recent excavations in over 100 architectural groups at the urban center of Chunchucmil, Yucatan, Mexico, enable comparison of resources available to different social groups across the site. Analysis of the quantities of obsidian and shell consumed within monumental compounds and within households of varied rank permits evaluation of different models of exchange operating within the site during the Early Classic period. Generally high quantities of obsidian across the site suggest reinterpretations of the nature of this commodity and the mechanisms through which access to it was maintained. Comparisons between Early Classic and Terminal Classic contexts highlight transformations in such mechanisms.

**Hutt, Sherry (NPS)**

[138] *The Admission of Archaeological Resource Damages into Evidence*

The successful prosecution of an ARPA case requires that valuation of archaeological damages be admitted into evidence. To many courts, the nature of these damages present novel considerations. This paper will explain how such information is qualified for admission into evidence and how archaeological damage evidence fits neatly into the rubric of damages commonly considered and widely accepted in the courts.

**Hutt, Sherry** [165] see McKeown, C. Timothy

**Hyder, William (UC Santa Cruz) and Dario Caloss (UC Santa Cruz)**

[137] *The Ritual Symbolism of Social and Personal Margins within Hunter-Forager Cultures: Liminality and Transformation in the Geometric Rock Art of the Western United States*

Ritual, and the basic building block of ritual, the symbol, function as agents of social integration and personal transformation. The geometric designs in the rock art of the Western U.S. are

symbolic ritual themes expressing 1) the major social totems and sacred symbols underpinning social structure and organization and 2) the ambivalent nature of transitional human beings and thus expressive of the rituals and ceremonies marking the transitional or liminal situation. Geometric rock art is thus best understood as expressions of the ecological margins of human experience—the physical, mental, or emotional conditions which a person or group finds itself.

**Iannone, Gyles [108]** *see Menzies, Adam*

**Indrisano, Gregory (University of Pittsburgh)**

[125] *Identifying Mobile Peoples Archaeologically: Looking Back to Go Forward*

This symposium, and this paper, is concerned with the archaeological study of peoples who reject sedentism because of their commitment to animal husbandry. Although mobile adaptations do not leave the rich and varied remains commonly seen from sedentary adaptations, it is likely that mobile adaptations do, in fact, leave some traces on the landscape. The question remains, how will we recognize this evidence if we find it? This paper will review recent approaches to the identification of mobile peoples archaeologically and operationalize these approaches on data from South Central Inner Mongolia to shed light on this issue.

**Ingram, Scott (Arizona State University)**

[82] *Streamflow and Demography in the Lower Salt River Basin of Central Arizona*

Floods and droughts and their effects on Hohokam irrigation agriculture play a prominent role in many cultural-historical interpretations of the Hohokam trajectory in the Salt River basin of central Arizona. Catastrophic floods and associated geomorphic stream channel changes (inferred from tree-ring records) may have contributed to settlement and population changes and the substantial depopulation of the lower Salt River basin ca. A.D. 1450 or later (Graybill et al. 1989). An examination of population growth and decline (inferred from domestic architecture in a well-documented canal system) indicates that population levels generally increased as the variability and frequency of inferred floods and droughts increased.

**Iriarte, José [149]** *see Voorhies, Barbara*

**Irvine, Melanie (University of Notre Dame)**

[5] *Prehistoric Ceramic Evolution at Collier Lodge, Northwestern Indiana*

The Collier Lodge site is located on the edge of the former Kankakee Marsh, an extensive wetland that dominated the physiography of northwestern Indiana. When first documented, the site was one of only two in its county known to produce prehistoric pottery. Excavations in 2004 documented occupations spanning the entire sequence of ceramics in the region from Early Woodland up through the Historic period in stratified contexts. The prehistoric assemblage provides a unique opportunity to define the evolution of the ceramics used by the prehistoric inhabitants of northwestern Indiana, especially during the poorly understood transitional periods between better-known phases.

**Irwin, Jeff [143]** *see Brannan, Nicole*

**Isaza, Ilean (Boston University/Smithsonian) and Michael Haller (University of Pittsburgh)**

[123] *Big, But Not the Biggest: Cerro Juan Díaz's Role in Regional Society Determined by Surveys of the Chiefdom of Parita*

Cerro Juan Díaz lies on the banks of one of two small rivers that belonged to a single chiefdom in 1516. Isaza's survey identified three sites of similar size and one slightly larger in this valley's lower reaches, which from AD 700 -1400 formed an almost continuous settlement. Haller's survey of the Parita river revealed a different site hierarchy with one site, La Mula-Sarigua, being the most extensive between 200 BC and AD 250, and El Hatillo the primary center after AD 800. We inquire why two valleys belonging to the same chiefdom had different settlement trajectories.

**Isbell, William (Binghamton University) [87]** *Discussant*

**Izuho, Masami (Sapporo Buried Cultural Property Center)**

[163] *The Archaeological Obsidian Studies in Hokkaido, Japan*

This paper reviews the archaeological obsidian study in Hokkaido, Japan. It will be provided from geological, geochemical and archaeological points of view: 1) Tertiary-Quaternary tectonics as Arc-Trench system and geological formation process of obsidian, 2) distribution of primary sources of obsidian and its geochemical characterization, 3) secondary distributed area and

archaeological inference of lithic raw material procurement point, and 4) the reconstructed models of hunter-gatherer mobility pattern, lithic raw material trade, and long-distance exchange networks of the Upper Paleolithic in and around Hokkaido.

**Izuho, Masami** [14] see Nakazawa, Yuichi; [4] see Takakura, Jun

**Jackson, H. Edwin (University of Southern Mississippi) and Sarah Nelson**

[29] *"Darkening the Sun in their Flight:" A Zooarchaeological Accounting of Passenger Pigeons in the Prehistoric Southeast*

The now extinct passenger pigeon (*Ectopistes migratorius*) has been of interest to zooarchaeologists because of the disparity between historic accounts of its abundance and its uneven distribution in the archaeological record. This paper examines the heretofore neglected Southeastern zooarchaeological record to reconstruct the prehistoric biogeography of the passenger pigeon, assess its importance as a food resource through time and across the region, and to discern possible cultural rules that affected its distribution. It follows Richard I. Ford's admonition that subsistence strategies develop from a complex interplay between ecological variables and the cultural filters through which people view their natural world.

**Jackson, Sarah (Harvard University)**

[152] *Integrating Evidence: A Methodological Case Study of Classic Maya Non-royal Elite*

Integrating multiple types of evidence is a crucial technique in archaeology; the intersections between disparate data sets, however, are areas that require careful negotiation. To explore the methodological ramifications of this issue, I examine a case study of Classic Maya courtly elites, documented in hieroglyphic texts, material remains, and colonial-era documentation. By studying these high-status individuals, some intriguing possibilities (as well as limitations) are revealed by the combination of various lines of evidence. In particular, the identification of core political units and fundamental conceptions of status reveal the kinds of underlying structures that become apparent through an integrated study.

**Jacobson, Esther (Department of Art History, University of Oregon) and James Meacham (InfoGraphics Lab, University of Oregon)**

[125] *Mapping as an Analytical Tool in the Study of Mongolian Altai Prehistory*

This paper discusses the use of mapping technologies in the study and analysis of surface archaeology in the Mongolian Altai region. The focus of the discussion will be the large complex of surface archaeology in the upper Tsagaan Gol basin. This complex is especially rich in petroglyphs, surface altars, and standing stones from the Bronze and early Iron Ages; it has, in addition, a considerable number of fine materials from the Turkic period. Implications for the study of the larger Altai region (Mongolian, Russian) will be drawn from the mapping of the Tsagaan Gol complex.

**Jacobson, Michael (Binghamton University)**

[142] *Americanizing the Miner: Capitalist Conflicts over Immigrant Labor in Colorado's Southern*

Interpretations of power often view structural authority as monolithic. However, even under encompassing ideological structures, such as capitalism, multiple powers and authorities compete for control, resulting in struggles over the implementation and practice of ideologies. This paper describes the way the corporation, Colorado Fuel and Iron (CF&I), materialized capitalist and corporate ideologies on a local scale in their coal camps through architecture and social programs. I assess the effectiveness of these programs by comparing them to observations made by The Colorado National Guard who as another structural authority paralleled, but also critiqued CF&I's ideologies.

**Jahnke, Lori M. (Tulane University)**

[70] *Research Potential of Looted Cemeteries in the Norte Chico Region of Peru*

Traditionally, skeletal biologists and archaeologists have discounted the research value of looted cemeteries due to the disturbed context and the poor preservation of skeletal remains resulting from surface exposure. The region surrounding the site of Acaray in the Huaura Valley, Peru contains a series of looted cemeteries exhibiting excellent preservation and substantial variation in their surface assemblages. Survey results and preliminary osteological analysis of the skeletal material conducted in 2004 present several new directions for research in this region.

**Jaime-Riveron, Olaf (University of Kentucky)**

[157] *Biography and Landscape; Analysis of the Process of Production of Olmec Stone Axes and Celts*

In this paper I will discuss the process of production of the Olmec stone axes. My analysis



included a sample of more than one thousand items that were recovered from primary contexts. The items were obtained from the archaeological sites of La Venta, El Manati, La Merced and El Macayal. I conducted analysis of the provenance of the stone and the chaîne-opératoire that the Olmecs followed in order to get finished and unfinished objects.

**James, Steven R. (California State University at Fullerton)**

[141] *Southern Sinagua Households and Use of Space: Comparisons of Honanki and Other Pueblos in Central Arizona*

Prehistoric Southern Sinagua pueblos in the Verde Valley of central Arizona have some of the largest average room sizes (>20 sq m) in the American Southwest. Pueblo architecture, room size, and room function from a large sample of sites in the region are examined in order to gain a better understanding about the Southern Sinagua, their family size and household composition, social organization, and their perceptions of space. In particular, data from recent archaeological investigations conducted by the Coconino National Forest and California State University, Fullerton, at the large cliff-pueblo ruin of Honanki, are presented. Comparisons are made with other prehistoric pueblos in the region, as well as with Northern Sinagua sites in the Flagstaff area.

**Jameson, Bryan [127]** *see Mercado-Allinger, Patricia A.*

**Janetski, Joel (Brigham Young University)**

[75] *High Altitude Fremont Wickiups at Fish Lake, Central Utah*

Fish Lake is a highly productive native fishery at 9,000 feet in south central Utah. Excavations here documented use in prehistory from at least 2000 years ago to the ethnographic present. That work revealed two Fremont wickiups dated to -AD 1000 and AD 1300s. Material culture studies indicate that use during the Fremont period was more logistical (primarily hunting) than use during either the preceding Late Archaic or subsequent Late Prehistoric periods. The presence of Zea mays indicates connections with farmers or farming. These findings are evidence of Fremont seasonal mobility and variation in Fremont house types.

**Janetski, Joel (Brigham Young University) [111]** *Discussant*

**Jantz, Richard L. [151]** *see Herrmann, Nicholas; see Owsley, Doug*

**Janusek, John (Vanderbilt University) [87]** *Discussant*

**Jelinek, Lauren (University of Arizona)**

[98] *The Historical Archaeology of Apache and Mormon Identity and Land Use*

The late nineteenth century witnessed an influx of Mormon colonists into the Mogollon Rim region, which contributed to rising tensions between the Euro-American settlers and the indigenous White Mountain Apache. This paper discusses the results of a full coverage survey of the Forestdale Valley, undertaken by the University of Arizona Field School. Through an analysis of historical period sites from this region, I undertake an examination of the archaeological manifestations of identity and different land use strategies of these two groups.

**Jenkins, Dennis (Museum of Natural and Cultural History, University of Oregon)**

[88] *Distribution and Dating of Pleistocene Fauna and Cultural Remains at Paisley 5 Mile Ridge Caves, South-Central Oregon*

First excavated during the field seasons of 1938 and 1939 by Luther Cressman, the Paisley 5 Mile Ridge Caves produced evidence of the possible association of Pleistocene fauna (camelids and horses) with artifacts in an activity area surrounded by boulders. The brevity of Cressman's reporting subsequently raised doubts about their true association. UO excavations conducted in 2002 and 2003 provide new data from which the site may be re-evaluated. AMS and obsidian hydration dating provide clues to the chronology of the faunal and cultural remains spatially and stratigraphically associated at the site.

**Jennings, Lyle [152]** *see Everson, Gloria*

**Jensen, Christopher T. [73]** *see Webb, Elizabeth; see Moriarty, Matthew D.*

**Jensen, Eva (Lost City Museum) and Lytle, Farrel**

[106] *Flutes and Glyphs, A Paleo/Archaic Clovis Site and Obsidian Source in Kane Springs Wash Southern Nevada*

Identification of a fluted Clovis point from the Kane Springs Wash obsidian source area and XRF age estimates of site petroglyphs yield important information on material procurement in Southern

Nevada. Kane Springs wash in southern Nevada is a transitional area between the Great Basin and the Mojave Desert. Three obsidian source signatures have been identified in the geology of the Kane Springs caldera. This point was found within 5km of one obsidian source and provides an opportunity to examine the Paleo environmental setting and landscape use in a material source and tool production area.

**Jeppson, Patrice L. (Benjamin Franklin Tercentenary Consortium)**

[110] *Which Benjamin Franklin - Yours or Mine?: Examining the Responses to a New Story from Franklin Court*

Recent research on the site of Franklin Court (excavated 1953-1975) reveals a history meaningful to local communities living in the present: The story of Franklin the slave holder and then abolitionist comes full circle when, figuratively speaking, descendants of the African American community that Franklin worked to free, in turn, excavated Franklin's history for the creation of a shrine to national historical memory. This presentation will examine various community and partner responses to this new Franklin Court story in light of the broader contexts shaping their differing agendas.

**Jerardino, Antonieta (University of Cape Town)**

[119] *Human Impact on the West Coast Marine Environments of South Africa*

Among several archaeological projects presently under way along the very extensive South African coastline, two on the west coast at Lamberts Bay and Elands Bay provide the largest data-sets. They contain clear indications of impacts on marine resources by local prehistoric populations. In addition, fine-grained studies of the modern marine ecology and palaeoenvironmental reconstructions support archaeological interpretations. Outstanding preservation of Holocene deposits at several sites, most notably Steenbokfontein Cave, helps to elucidate the ways that fluctuating sea levels, marine productivity, and population densities interact with shifts in subsistence and settlement patterns.

**Jimenez, Maximo (Smithsonian Tropical Research Institute)**

[123] *La bondad de las aguas someras tropicales: la pesca en Cerro Juan Díaz, Panamá (The Richness of Tropical Shallow Waters: Fishing at Cerro Juan Díaz, Panamá)*

Los estuarios del Pacífico tropical poseen abundantes recursos de origen animal que se obtienen en cantidades apreciables con tecnologías sencillas. En seis rasgos en Cerro Juan Díaz se han identificado 160 especies de peces telósteos y elasmobranquios. La mayor parte de éstas abundan en aguas someras del estuario. La frecuencia de unas cuantas especies que nadan en aguas claras o a cierta distancia de la costa, como Pomadys panamensis y Caranx caballus, sugiere que los pescadores salían en pequeñas embarcaciones hasta 4 km de la costa. (Estuaries of the tropical Pacific possess abundant animal resources that can be easily procured in large numbers with simple technologies. 160 species of fish 'teleosteos' and 'elasmobranchios' were identified in six features at Cerro Juan Díaz. The majority of these species are abundant in the shallow waters of the estuary. The importance of some species that swim in clear waters or at a certain distance from the coast, like Pomadys panamensis and Caranx caballus, suggest that the fishers were using small boats to reach distances up to four kilometers off the coast.)

**Jimenez Betts, Peter (Instituto Nacional de Antropología e Historia)**

[132] *Professional Ethics in Mexican Archaeology*

The practice of archaeology in Mexico is done within a very well defined institutional framework, a condition that offers very clear limits of conduct. On one hand, these limits are obligatory in the public interest, meaning, they are found defined inside the laws and norms that govern the country. On the other, Mexican archaeology has developed a strong academic tradition that has as a characteristic integrated studies; this implies exchange and constant interaction with the other anthropological specialties. Furthermore, ethics in carrying out archaeology in Mexico bases its principles in historic roots and institutions.

**Jochim, Michael (University of California, Santa Barbara) [19] Discussant**

**Jodry, Margaret (Smithsonian Institution)**

[27] *Black Mountain: A High Altitude Folsom Camp in the San Juan Mountains, Colorado*

Black Mountain (5HN55) is the highest altitude Folsom camp excavated in North America and documents use of mountain terrain above 3050 meters during the Younger Dryas interval of cooler climatic conditions. A basin hearth (AMS radiocarbon dated 10,740+-40 BP and 10,650+-40 BP) stratigraphically situated near the base of a paleosol was associated with a Folsom lithic

assemblage discarded during a relatively brief stay. I present results of technological and spatial analyses of this assemblage and develop an interpretation of seasonal transhumance and resource procurement for the intermontane landscape of northern New Mexico and southern Colorado.

**Jodry, Margaret [151]** see *Vierra, Bradley*

**Jofre, Daniella (Trent University)**

[110] *Reconstructing Identities in Andean America*

Current research questions the way archaeology has constructed cultures as ethnic groups. In Chile, social sciences have avoided playing a political role, consequently legitimizing certain histories above others. Recently, some native populations have claimed their indigenous rights and recognition as Andean First Nations. Using existing laws and new programs, they have constituted themselves as organized indigenous communities focusing on the issues of land, water and cultural heritage. Archaeology needs to integrate archaeologically-based identities and support ways for understanding different meanings from the past. This paper furthers a discussion of the ethnicity concept focusing on the validity of these appropriation strategies.

**Johansen, Trine (University of California, Davis) and Shannon Tushingham (University of California, Davis)**

[95] *Faunal Remains from Richardson's Landing: A Multi-component Site in the Central Mississippi Valley*

Few faunal assemblages have been identified from this part of the Central Mississippi Valley, and the assemblage from Richardson's Landing 40TP13 provides a unique look at the subsistence of late Woodland/early Mississippian period people living in western Tennessee. Of the number of identified specimens (n=1189) from this site, 29% are fish, 25% reptiles, 6% birds, and 40% mammals. The collection has a richness of at least 26 different species; however, the only species that comprise more than 1% of the assemblage are gar (*Lepisosteidae*), turtle (*Testudinata*), ground squirrel (*Spermophilus* sp.), and deer (*Odocoileus* sp.). Although these fauna were probably dominant in the prehistoric diet here, the preponderance of their skeletal material also reflects cultural taphonomic processes as the remains were heavily burned and fragmented when the dwellings were abandoned.

**Johnson, Beverly [119]** see *Bourque, Bruce*

**Johnson, C. David (Washington State University) and Timothy Kohler (Washington State University)**

[94] *Modeling Long-term Human Ecology: Simulating Prehistoric Settlement in the Upland Southwest*

Long-term socio-natural interaction has generated much interest in anthropology in general and in archaeology in particular. Combining modern and paleoenvironmental data, we retrodict annual landscape production of several natural resources considered critical to sustained occupation of the upland Southwest. Given various resource requirements and variable climatic and edaphic conditions, this research predicts where households should locate to most effectively utilize their landscape. By comparing the archaeological record of centuries of regional occupations to simulated household settlement patterns within the 'Village' project study area of the Mesa Verde region, we model the influences of different resources on long-term settlement decisions.

**Johnson, C. David [89]** see *Kohler, Tim A.*

**Johnson, Eileen [27]** see *Backhouse, Paul*

**Johnson, Jack (University of Washington), James Feathers (University of Washington) and Silvia Rodriguez Kembel (University of Pittsburgh)**

[160] *Luminescence Dating of Architectural Features at Chavin de Huantar, Peru*

The chronology of the construction sequence at the monumental temple of Chavin de Huantar in highland Peru has long been debated. This is at least partially due to the difficulty in obtaining relevant samples for chronometric dating at the site. To address this problem, we are attempting to directly date the construction events by applying luminescence dating to both mortar and stone materials. We discuss collection procedures, problems in determining radioactivity, and evidence for proper zeroing of the samples at the time of construction. We then present some preliminary results, and briefly discuss the potential for future applications of luminescence dating of monumental architecture.

**Johnson, Jack [160]** see *Kembel, Silvia Rodriguez*; [49] see *Feathers, James*

**Johnson, John (Santa Barbara Museum of Natural History)**[19] *The Frenchman and the Fetishes: Léon de Cessac's Channel Islands Collections, 1877-78*

The French archaeologist Léon de Cessac undertook extensive fieldwork on Santa Cruz, San Miguel, Anacapa, and San Nicolas Islands in 1877-78. Unfortunately, he never completed a formal monograph, and most of his original manuscripts have been missing for more than a century. His extant collections include a number of rare and unique pieces, including an unparalleled assemblage of stone fetishes from San Nicolas Island. A new look at Cessac's collections, along with some recent archival discoveries, provide a basis for elucidating cultural differences and similarities between the Northern and Southern Channel Islands and reconstructing aspects of prehistoric exchange systems.

**Johnson, John (Santa Barbara Museum of Natural History)** [120] *Discussant***Johnson, Karen (University of Michigan)**[64] *Minority Report: Reasoning Strategies in the Cognitive Science of Social Groups and in the Archaeology of Childhood*

This paper first considers some key topics in the cognitive science of social groups, which provide descriptions of reasoning strategies that humans in general use when forming impressions and making inferences about different social groups. They may also help inform methods for identifying and interpreting social groups in the archaeological past. As an illustration, the remainder of this paper examines the social messaging of artifacts specifically designed for children's play activities during the Roman period (c. 1st century BCE-5th century CE) at the Egyptian town of Karanis.

**Johnson, Pamela (University of Alabama)**[143] *The Occupational History of the Area Known as Mound W at Moundville*

Because of its large recovered sample of grog-tempered pottery, the area known as Mound W at Moundville, Alabama, has always been speculated to have the potential to aid in the debate about the Late Woodland – Mississippian transition in the Black Warrior Valley; however, analysis of the materials from this area has not occurred since its excavation in 1941. In this paper I discuss Mound W's occupational history and its spatial and chronological position on the Moundville terrace. In particular, I examine a detailed set of vertical mound profiles as well as burial, feature, and field specimen records in order to reconstruct spatial relationships/surfaces. In addition, I describe Mound W's mixed ceramic assemblage and the particular usefulness of multiple linear regression in tackling this area's complex dating problem.

**Johnston, Kevin (Ohio State University)**[134] *Estimating the Size of the Invisible Maya Population: Challenges and Opportunities*

How large was the lowland Maya invisible population and what percentage of the total population did it represent? To address this question I (a) identify minimally mounded structures as those most likely to be invisible in the archaeological record and (b) examine minimally mounded structure trends at three sites where surface, visibility conditions are unusually good. From the latter I draw broad inferences about lowland Maya minimally mounded settlement and thus invisible population trends. Although at the sites examined minimally mounded structures constitute more than 35% of all mapped structures, such structures probably over-represent the invisible population because most were briefly occupied.

**Johnstone, Dave (Humboldt State University)**[159] *Smith's Legacy in the Northern Lowlands: The Pottery of Mayapan*

While the Uaxactun sequence has been the primary influence on the ceramic interpretation of sites in the Southern Lowlands, for the Northern Lowlands, the primary influence has resulted from Smith's other major contribution to Maya ceramics- the Mayapan report. From it comes our greatest reliance- the type descriptions, and our greatest sources of confusion- both temporal and geographic. An examination of the theoretical and methodological biases inherent in the report should clear up some of these confusions and permit an easier communication between archaeologists and comparison of the ceramic content of archaeological sites.

**Jol, Harry** [5] *see Kaufmann, Kira***Jolie, Ed** [111] *see McBrinn, Maxine***Jolie, Edward (University of New Mexico) and Eugene Hattori (Nevada State Museum)**[111] *The Spread of Coiled Basketry in the Prehistoric Great Basin*

Coiled basketry, as compared to twined or plaited basketry, constitutes the last major development in the basketweaving repertoire of the prehistoric inhabitants of the Great Basin.

Despite its increasing abundance and functional importance through time, very little is known of the timing and manner of its spread throughout the area. Over the past thirty years, several scholars have speculated as to how and why coiling spread across the Great Basin. We re-examine these explanations in light of new dates and discoveries, with the aim of illuminating the complexity of the technology's spatial and temporal trajectory.

**Jolie, Ruth Burgett (University of New Mexico)**

[111] *Netted Structures in the Prehistoric Great Basin*

Within the prehistoric Great Basin, netted fabrics are well represented in perishable artifact assemblages and typically occur in the form of hunting or fishing nets. Other netted structures recorded include bags, hair nets, and sling pockets. The importance of netted fabrics to Great Basin peoples is demonstrated by their relative abundance and their reuse as constituent parts in the manufacture of other items. This paper reviews the chronology and primary technology of knotted and so-called "knotless" nets. I also discuss the use context of archaeological specimens in relation to what is known ethnographically about netted structures in the region.

**Jones, Bradford (University of Illinois at Urbana-Champaign)**

[66] *The Archaeology of Regime Change: The Problem of Time, Style, and Site Identification in the Yucay Valley, Peru*

In 2003 a preliminary archaeological survey was conducted in the Yucay Valley, Peru, to identify sites pertaining to communities of mitmaquna and naturales described in 16th century documents. Contrary to expectations, these sites were not dominated by artifacts of clear Inka or Spanish colonial manufacture, but rather ceramic styles typically ascribed to the Late Intermediate Period. This paper discusses the relationship between the documentary record and the archaeological assemblages of the sites recorded during the survey and considers the implications for our understanding of patterns of local production and consumption under Inka and Spanish colonial rule.

**Jones, Emily Lena (University of Arizona) and Phoebe S. Anderson (University of Washington)**

[130] *Zooarchaeology, Evolutionary Ecology, and the Sexual Division of Labor*

Over the last decade, zooarchaeologists have increasingly turned to evolutionary ecology, and in particular, optimal foraging theory, as analytical framework. Many of these studies have identified instances of resource depression based on a decrease through time in the ratio of large (higher-ranked) to small (lower-ranked) game. This approach makes the assumption that all resources can be attributed to a single hunting strategy. In this paper, we consider how gender-based differences in foraging strategies might affect such studies, and make suggestions as to how zooarchaeologists might deal with the problems posed by the sexual division of labor.

**Jones, Eric (Pennsylvania State University)**

[5] *Digital Landscapes: Using Viewshed Analysis to Explore New York Iroquois Village Movement*

Over the last 50 years settlement pattern studies in Iroquoian archaeology have yielded large amounts of information about prehistoric life in the Northeast including patterns of small-scale migration. Iroquois settlement patterns were characterized by periods of sedentism interrupted by village movements every 20 to 30 years to a new location within a few kilometers of the original settlement (Snow, 1994: 71). Viewshed analysis in GIS yields information about the role visibility of the surrounding landscape plays in the selection of village locations. Correlations between visibility and village location allow us to explore specific community movements in new and interesting ways.

**Jones, George T. [88] see Craven, Sloan; see Beck, Charlotte**

**Jones, Kevin T. (Utah Antiquities Section), Duncan Metcalfe (University of Utah), Steve Gerber (University of Utah), Jerry Spangler (College of Eastern Utah) and Renee Barlow (Salt Lake Community College)**

[51] *The Archaeology of Range Creek, Utah*

A 1,500 acre cattle ranch along Range Creek in Eastern Utah was purchased in 2002 by congressional appropriation, and is now owned by the State of Utah. The Wilcox family owned and cared for the property for 60 years, and most notably, vigorously protected the many archaeological sites there. The rich archaeological resources, most dating from the Fremont period, are abundant and unspoiled. Archaeological crews have recorded nearly 300 sites in the past three summers, including pithouse villages, cliffside granaries, remarkable rock art and historic cabins. Research continues in the canyon, and its pristine and abundant archaeology will contribute greatly to our understanding of the Fremont period for years to come.

**Jones, Terry (California Polytechnic State University, San Luis Obispo)**

[120] *The Unthinkable in Western North American Prehistory: Archaeological Evidence for Southern California-Polynesia Contact*

Material similarities suggestive of prehistoric Polynesian contact with southern California, first recognized over a century ago, have become unthinkable within the confines of processual and postmodernist archaeologies. Discovery of a linguistic nexus for terms related to construction of sewn plank canoes, provides ample incentive to reconsider this seemingly implausible possibility. Sewn plank watercraft were produced in only one location in Native North America yet this construction technique was common throughout Polynesia. The initial appearance in southern California of sewn plank canoes coincides with punctuated adaptive change (e.g., increased exploitation of pelagic fish) and appearance of a Polynesian style two-piece bone fishhook. Despite longstanding agreement that economic change through time in the Chumash area reflects in situ adaptation, the material record in combination with new linguistic findings suggests at least a modicum of external influence.

**Jordan, Elizabeth (Rutgers University)**

[77] *It All Comes Out in the Wash: The Archaeology of Cape Town's Washerwomen*

Archaeological excavations were recently conducted at the site of a former washing place in Cape Town, South Africa, where slave women and their descendents gathered daily, over the course of three centuries. In this paper, archaeological data from this site is used to establish the material signature of washing, and to argue that similarities between Cape slave assemblages and those of the New World may be better explained by economy than ethnicity.

**Jordan, James (Antioch New England Graduate School), Bruce Finney (University of Alaska, Fairbanks), Diana Odorcuk (University of Alaska, Fairbanks), Nicole Misarti (University of Alaska, Fairbanks) and Herbert Maschner (Idaho State University)**

[71] *Paleoecology of the Sanak Archipelago*

The Sanak Island archipelago preserves high resolution records of late Quaternary terrestrial, lacustrine, and marine / littoral environmental change. While environmental conditions during the Holocene approximate those of the Alaska Peninsula, 40 km to the north, the islands have been influenced by processes significantly distinct from the peninsula because of their geology and relative isolation on the continental shelf edge. The archipelago was probably overrun twice by advances of the distal margins of a late Wisconsin ice sheet centered between the peninsula and Shumagin Islands. Till is thin however, and soil parent materials are derived from multiple tephras and weathered bedrock. A pronounced transition from widespread alluviation to downcutting that occurred in the late Holocene is provisionally linked to regional climate change, although raised shorelines and infilling of bays suggests that isostatic and/or seismic uplift have influenced island hydrology. Data generated from geological, pedological, limnological, and volcanological research on Sanak are remarkable because they integrate broader shifts in the north Pacific ecosystem and provide the context for human adaptation to and manipulation of this system.

**Jordan, James [71]** see Maschner, Herbert

**Jordan, Kurt [153]** see Matthews, Christopher

**Jordan, Peter (Department of Archeology, University of Sheffield)**

[140] *Ethnoarchaeological Insights into Hunting, Fishing and Gathering Communities in Western Siberia*

In this paper I present the results of recent ethno-archaeological work amongst hunter, fisher gatherers in Western Siberia. I will argue that ethnographic studies of artefact use and deposition, amongst present day communities in Siberia, have much to offer archaeologists interested in past world views. In particular, an ethnoarchaeological focus on the processes by which cultural landscapes are produced and inhabited equips us with a sophisticated range of interpretative frameworks which open out our understandings of the richness and diversity of hunter gatherer worldviews and their links to ecology, subsistence, mobility and social organisation.

**Jorde, Lynn (University of Utah, School of Medicine), Michael Bamshad (University of Utah, School of Medicine), Stephen Wooding (University of Utah, School of Medicine), Scott Watkins (University of Utah, School of Medicine) and B.V.R. Prasad (University of Utah, School of Medicine)**

[85] *Genetic Variation in Hindu Caste Populations*

We report an analysis of genetic data in 250 members of 8 South Indian caste populations.. The genetic data include mtDNA sequence, 43 Y chromosome polymorphisms, 45 autosomal short tandem repeat (STR) polymorphisms, and 100 Alu insertion/deletion polymorphisms. The caste

genetic data were compared with genetic variation in 143 Africans, 78 Asians, and 119 Europeans. For the mtDNA data, all caste populations showed greatest affinity with Asians and least affinity with Africans. For the Y chromosome, STR, and Alu polymorphisms, upper castes were most similar to Europeans, while lower castes were most similar to Asians. These findings are consistent with a scenario in which a relatively recent influx of Indo-European speakers appropriated the higher ranks of the caste system.

**Joyce, Arthur A. (University of Colorado at Boulder)**

[54] *Conflict in Formative Period Oaxaca*

In this paper, I examine the nature, scale, and motivating factors for conflict in Formative Period Oaxaca. Most researchers have focused on warfare as directed towards territorial conquest for the control of land and trade. I review evidence for warfare in other regions of Formative Mesoamerica along with ethnohistoric data on conflict to consider other factors that may have motivated interpolity conflict. I conclude that in order to more fully understand patterns of early warfare in Oaxaca, we must also consider the role of religious belief and the internal dynamics of polities, in addition to interpolity competition for material resources.

**Joyce, Arthur** [152] *see Mueller, Raymond*

**Joyce, Rosemary (University of California, Berkeley) and John Henderson (Cornell University)**

[166] *Social Relations in Early and Middle Formative Honduras: Negotiating Status at Puerto Escondido*

Occupied by 1600 BC, Puerto Escondido is the earliest village site known in Honduras. Excavations in four separate areas of the site have produced data allowing in-site comparison of residential and non-residential architectural elaboration, and of the production and consumption of pottery, obsidian, and shell artifacts. Differences in consumption between residents of different sectors of the site are recognizable by 1300 BC and are strongly marked between 1100 and 700 BC. This paper examines these differences as evidence of specific practices employed by different groups within a single village to negotiate relative status within the village and the region.

**Joyce, Rosemary (University of California, Berkeley)** [153] *Discussant*; [166] *see Henderson, John*

**Judge, W. James (Fort Lewis College)** [154] *Discussant*

**Jull, A. J. Timothy (University of Arizona, Tucson, Arizona), Yaroslav V. Kuzmin (Pacific Institute of Geography, Vladivostok, Russia) and George S. Burr (University of Arizona, Tucson, Arizona)**

[163] *Chronological Patterns of Obsidian Exploitation in Northeast Asian Prehistory*

In Northeast Asia (Japan, Korea, and the Russian Far East), the earliest use of obsidian as a raw material was detected in the Upper Paleolithic of Japan at ca. 30,000 BP in the Kanto Plain (Kozu-jima source). Exploitation of the Paektusan source began in Korea at ca. 24,000 BP and in the Primorye (Maritime) Province of Russia at ca. 10,000 BP. Two Hokkaido Island main sources, Shirataki and Oketo, were widely used since ca. 20,000 BP. From ca. 10,000 BP to ca. 2000 BP, obsidian was a common raw material in the Neolithic and Paleometal complexes of the region.

**Junker, Laura (University of Illinois Chicago)**

[43] *The Archaeological Evidence for Changing Strategies of Tropical Forest Adaptation in Prehistoric to Historic Period Philippine Foragers*

There has been significant debate on the capacity of humid interior tropical forests in Southeast Asia to sustain human foragers without some integration of farming or trading for agricultural products into their subsistence regimes, questioning the possibility of early Holocene colonization of such ecological zones. Ethnographic, historic, and archaeological evidence suggests that ecological arguments on foraging limitations based on carbohydrate shortages may not consider cultural practices such as storage and plant manipulation, as well as shifting strategies of specialization and trade among foragers of the region. In examining these issues, archaeological evidence is presented for changing strategies of tropical forest utilization in prehistoric to historic period hunter-gatherers of the Philippines.

**Justham, Tanya** [5] *see Hamilton, Nathan*

**Kahn, Jennifer (University of California, Berkeley)**

[57] *Stone Tool Production and Consumption in a Complex Chieftdom: Patterns of Economic Specialization in the Society Islands (French Polynesia)*

Excavations at Society Island house sites revealed significant variation in the density and types of tools and debitage recovered. Artifact counts suggested the presence of an adze production workshop at ScMo-170 and a specialized woodcarving locale at ScMo-120. Detailed technological analysis is presented here to identify the manufacturing stages present at each site, including the distribution of production debris, finished tools, and resharpening debris. These data are compared with experimental adze production studies, as a means for identifying intra-site patterns of adze production, use, and exchange, and their implications for socio-economic organization in this complex chieftdom.

**Kahui, Tonya [118]** *see Kramer, Stephenie*

**Kaiser, David (Oregon Archaeological Society)**

[137] *The Rayed Arc Motif in Columbia Plateau Rock Art Interpreted as Transitional Entoptic Imagery*

The Rayed Arc motif accompanying a human figure is commonly found in Columbia Plateau rock art. Like many other iconic motifs in rock art this image can be interpreted as having a neuropsychological origin. Due to its compositional nature this motif can be interpreted as a transitional entoptic image. This records the moment when the trance participant stops merely observing the imagery and seems to enter the other world via a "tunnel" and fully participates within it. Similar images found in other areas and cultures help support the argument that the image is based on universal mental patterns.

**Kaldahl, Eric (Tohono O'odham Nation Cultural Center and Museum)**

[94] *We're Still Here: Building a Living Cultural Center for the Tohono O'odham Nation*

The Tohono O'odham Nation is building a Cultural Center. I asked a member of the Nation's Youth Council what he thought about a large museum he had visited in a metropolitan area. He enjoyed the many artworks of Native people. But he thought the exhibit made it seem like the Tohono O'odham didn't exist anymore. Planning for the Nation's own cultural center has emphasized dialogue with many audiences in a changing community. The goal is a place that is dynamic, evolving, and forward looking. Preservation is more than conservation; it is in the living of the Tohono O'odham's "himdag."

**Kane, Lowell and Suzanne Eckert (Texas A&M University)**

[97] *Social Transformations in the Context of Aggregation*

This paper examines the creation and maintenance of social boundaries at Hummingbird Pueblo in Central New Mexico. Evaluation of ceramic data indicate that 14th century social boundaries were affected both by aggregation of the local population, as well as immigration from the Western Pueblo region, into this village. The coalition of various groups would have required transformations in group identity. Such transformations occurred through daily attempts by village residents to reproduce their social order in the changed context of aggregation and immigration. As a result, some aspects of pottery suggest an emphasis on signaling separate group identities, while other aspects suggest an emphasis on village-wide integration.

**Kankainen, Kathy (Utah Museum of National History)**

[111] *Promontory Cave Moccasin Research and Conservation Project*

In 1930 anthropologist Julian Steward excavated over 250 moccasins and other leather objects from Promontory Cave along the shores of the Great Salt Lake for the University of Utah. These flattened objects underwent major conservation in 2002 thanks to a grant the Museum received. A professional conservator was hired and worked with our staff to examine, research, reshape and document this neglected collection. Information that had been imbedded in the moccasins - construction techniques, wear patterns and repairs, embellishment methods, and materials used - were rendered visible with the conservation efforts. The conservation process and the results will be shared and discussed.

**Kansa, Eric (The Alexandria Archive Institute) [61]** *Discussant*

**Kantner, John (Georgia State University)**

[131] *Chaco-Era Community Development in the Red Mesa Valley of New Mexico*

Recent archaeological investigations in the Red Mesa Valley of New Mexico are allowing a



detailed reconstruction of community development, especially as this growth is related to the Chaco era of the 10th and 11th centuries. This paper discusses these developments on two scales: First, the perspective of a single community, known as Blue J, is provided. The second part of the paper considers the perspective of the entire valley, in which a dozen communities similar to Blue J developed and interacted prior to and during the Chaco era, ending with the valley's rapid depopulation during the 12th century.

**Kapches, Mima (Royal Ontario Museum)**

[142] *Dr. Henry Montgomery: The Utah Years of a 19th Century Canadian Archaeologist*  
Dr. Henry Montgomery was born on a farm in Ontario in 1849. He attended the University of Toronto where he was taught by renowned archaeologist Sir Daniel Wilson. After a varied academic career, including a seven year appointment at the University of North Dakota, he arrived at the University of Utah in Salt Lake City in 1890 where he taught until 1894. He returned to Toronto to finish his career. His collections were donated to the Royal Ontario Museum. This is an introduction to Montgomery and his interesting career with a focus on his years in Utah.

**Karavanic, Ivor (Department of Archaeology, University of Zagreb, Croatia)**

[44] *Adriatic Coast of Croatia and its Hinterland from 50,000 to 25,000 BP*  
The paper presents recent analysis of the artifacts from upper levels with late Mousterian industry at Mujina Pe'ina, Dalmatia and Aurignacian levels of 'andalja II, Istria. Mousterian tools in Mujina Pe'ina are produced on local chert, occasionally using Levallois technology. Local chert is also predominant in Aurignacian of 'andalja II where blades are produced with soft hammer. Beside Mujina Pe'ina cave, there are many Mousterian open air sites in Dalmatia, while Aurignacian sites on Adriatic coast of Croatia are very rare. Possible explanation could be sea level rising at the end of the Pleistocene or scarcely populated coast during Aurignacian.

**Karpinski, Mark (University of Wyoming)**

[27] *A Statistical Examination of Projectile Point Typological Affinities in Southwestern Wyoming*  
One fundamental problem archaeologists encounter with the surface archaeological record of southwestern Wyoming is the establishment of age. Archaeologists use regional projectile point typologies to establish relative age, but which should be applied. I examine 320 projectile points recovered from the Moxa Arch Pilot Project (MAPP) area of southwestern Wyoming for possible Great Basin typological affiliation. Using Thomas' (1981) Monitor Valley Typology for comparison, I subject the data to multivariate statistical analysis to determine the existence of statistically definable groupings. Similarities between the statistical results and the Monitor Valley types suggest affinity, but differences suggest the affinity is not universal.

**Kaufmann, Kira (University of Wisconsin-Milwaukee), William Kean (University of Wisconsin-Milwaukee) and Harry Jol (University of Wisconsin-Eau Claire)**

[5] *Archaeological Geophysical Investigations at a Late Woodland Effigy Mound Site, Jefferson County, Wisconsin*

The construction of effigy mound sites below the ground surface remains poorly understood. Electrical resistivity soundings, shallow EM, and ground penetrating radar were employed to assess the archaeological and geological content of Indian Mounds County Park in Jefferson County. Initial results from the geophysical data at this effigy mound site have revealed complex geologic and cultural structure at this site. Archaeologists have treated effigy mound sites as sacred space where a limited set of activities occurred. The remote sensing data from Indian Mounds Park suggest a more complex use of effigy mound sites by Late Woodland peoples.

**Kay, Marvin (University of Arkansas)**

[151] *Ozark Highland: No Transition*

Changes in artifact form occur but not the function of stone tools, or their use histories. Thus, artifact style, stratigraphy and radiocarbon dating clearly divide earlier Paleoindian and later Archaic archaeological complexes. Yet, settlement and subsistence exhibit a general board-based foraging strategy. This mode of adaptation remains constant in the Ozark Highland, adjacent and more western Plains during the late glacial and early postglacial periods, with Folsom being the one notable exception.

**Kay, Paul T., Richard L. Reynolds (USGS-Denver), Phil Geib (Navajo Nation Archaeology) and Steven LeBlanc (Harvard-Peabody Museum)**

[25] *Non-destructive Optical Reflected-light Petrography Reveals Precursor Iron-bearing Minerals in Post-fired Ceramics*

Reflected-light petrography reveals precursor iron-bearing minerals of fired ceramics; direct

evidence that prehistoric ceramicists created red wares/designs and oranges by using goethite in oxidizing firings. Variability in goethite help determine the degree of 'redness'. An unfired sherd with a yellow slip suggested what Florence Hawley theorized in 1929. This method, presented with others during R & D of the technique, will be employed by Kay and LeBlanc to study a 'bird-like'/'heart-like' design having wide-spread temporal and spatial occurrence in the SW on selected ornaments, ceramics and kiva murals-for possible associations.

**Kealhofer, Lisa (Santa Clara University)**

[43] *Late Pleistocene Phytoliths from Niah Cave*

Recent work at Niah Cave seeks to clarify the results of earlier excavations by combining a high-resolution radiocarbon chronology with multidisciplinary analyses of paleoenvironmental indicators (fauna, microbotanical remains, geomorphology). Environmental evidence from the Late Pleistocene and early Holocene is relatively rare in the lowland tropics of Southeast Asia; Niah Cave provides an important archive of localized paleoenvironmental conditions over the last 50,000 years. The phytolith remains, discussed here, provide a taphonomically distinct picture of segments of the Late Pleistocene in Niah Cave, characterizing the local vegetation rather than the larger regional pollen rain, during periods when people used the cave.

**Kealhofer, Lisa [144]** see *Grave, Peter*

**Kean, William [5]** see *Kaufmann, Kira*

**Kearns, Timothy (Western Cultural Resource Management)**

[82] *Investigations on the Village Periphery: Maize and Radiocarbon Dates from Las Capas, Pinal County, Arizona*

Excavations at the village of Las Capas, AZ AA:12:111(ASM), provide additional insight into the Early Agricultural period in the Tucson Basin of southern Arizona. The investigations targeted a series of extramural features and helped define the periphery of the buried village. Flotation and pollen analyses demonstrate a reliance on maize agriculture and reinforce results from other investigations at Early Agricultural period sites in the region. Eleven radiocarbon assays, including 10 on macrobotanical maize, indicate occupation of the Las Capas periphery during the early Cienega phase. The investigations are placed in the larger context of the extensive village and reviewed vis-à-vis investigations at other Early Agricultural Period sites.

**Keates, Susan (University of Arizona) and Yaroslav V. Kuzmin (Pacific Institute of Geography, Vladivostok, Russia)**

[14] *Population Dynamics in the Palaeolithic of Siberia (46,000-12,000 BP): First-Generation Results*

For the late Middle Palaeolithic and Upper Palaeolithic of Siberia we collected 432 radiocarbon dates from 130 sites which were combined into 276 occupation episodes. Occupation density can be subdivided into three intervals: 46,000-36,000, 36,000-16,000, and 16,000-12,000 BP. Up to ca. 36,000 BP, the density of populations was very low. A higher density can be detected at ca. 36,000-16,000 BP. There was no significant decrease in density during the LGM (20,000-18,000 BP) showing that environmental conditions posed no substantial deterrent to human occupation. After ca. 16,000 BP, population density grew exponentially, and was the highest in the Palaeolithic of Siberia.

**Keegan, William (Florida Museum of Natural History)**

[119] *Exploitation of the Queen Conch (Strombus gigas) in the West Indies: A Millennial Perspective*

Archaeological investigations throughout the West Indies have documented significant differences in the use of *Strombus gigas* as both a food and tool source. Examples from four islands spanning the period AD 700 to 1500 are used to explore these differences. In addition, changes in near-shore ecosystems as a result of the overexploitation of *Strombus gigas* are also discussed.

**Keeler, Peter (University of Texas)**

[58] *The Rim-Text Standard Sequence: Pseudo-Glyphs on Pabellon Vessels as a Kind of Maya Hieroglyphic Primary Standard Sequence*

The strange markings around the rim of certain Pabellon vessels have long and widely been dismissed as decorative and meaningless "pseudo-glyphs." A previous paper, presented at the Texas Maya Meetings in March 2003, demonstrated that these glyphs occur in a regular pattern, and hypothesized that they were examples of Maya hieroglyphic writing - a variation of the well-

known Primary Standard Sequence. This paper presents additional evidence in support of that hypothesis, and speculates about the implications that follow from the form of the glyphs, and from the nature, structure, distribution, and iconographic associations of the RTSS.

**Keenan, Jeremy (University of East Anglia)**

[79] *Who Thought Rock Art Was About Archaeology!? The Political Economy of Saharan Rock Art*

In spite of the Central Sahara containing some of the world's best known and most magnificent prehistoric rock art, a leading expert in this field recently pronounced that its contribution to science had been minimal. While that statement is debatable, this paper provides it with some credibility by showing how the discovery, exploration, interpretation and exploitation of the Tassilian rock art of the Central Sahara, from the 1950s to the present, has been driven as much by extraneous political and ideological motivations and associated fraudulent activities, as concern for the method and science of archaeology.

**Kellett, Lucas (University of New Mexico)**

[136] *Hilltop Settlements of the Central Andes: New Models and Perspectives*

The paper attempts to broaden current explanations for Late Intermediate Period hilltop settlement in the Peruvian highlands. This settlement pattern is held as a defensive response to rising political tensions after the Wari collapse, but preliminary research on hilltop settlements from the Chanka heartland of the Andahuaylas Valley does not convincingly support this conflict model. A regional drought in the south central Peruvian highlands may have coincided with sociopolitical flux, suggesting a more complex picture for shifting settlement patterns. A settlement ecology framework is presented to understand more completely not just political, but also ecological factors for hilltop settlement.

**Kellett, Lucas** [49] *see Bauer, Brian S.*

**Kellner, Corina (Department of Anthropology, University of California, San Diego) and Margaret Schoeninger (Department of Anthropology, University of California, San Diego)**

[25] *Dietary Carbohydrates Influence Collagen Stable Isotope Values and the Collagen to Apatite Offset in Diets with Normal Protein Levels*

In contrast to common assumption, a combination of all experimental feeding data reveals a variable relation between bone collagen d13C values and dietary protein. Bone collagen values show input of dietary carbohydrate on all diets; but the collagen to apatite offset is smaller with C3 (0-5 per mil) than with C4 carbohydrates (5-11 per mil) irrespective of the type of dietary protein. Faunal field studies and many archaeological human populations largely match these patterns. In contrast, some Maya, Ontario agriculturists, and California island foragers relied on C4 proteins and foods to an extent greater than previously recognized. Funded by UC Regents to MS.

**Kelly, Katherine M. (South Puget Sound Community College) and Barbara A. Vargo (AMEC Earth & Environmental)**

[101] *Analysis of the Stone, Bone-Antler and Shell Artifacts from the Qwe? gwe? Site (45TN240), South Puget Sound, Washington*

Excavations during seven field seasons at 45TN240 have archaeologically explored a little known area of the Central Northwest Coast. The site contains a Late Period dry component of stone, bone-antler and shell (SB-AS) artifacts, and a waterlogged section containing basketry, cordage, wooden and lithic artifacts. A cluster analyses of these artifacts and those found in northern Puget Sound, Gulf of Georgia, Strait of Juan de Fuca the West Coast of Washington and Vancouver Island, B.C., demonstrates a distinct contrast between ethnogenesis and phylogenesis in ethnic styles and identity through basketry and possibly cordage and lithic artifacts.

**Kelly, Robert (University of Wyoming) [88] Discussant**

**Kelly, Sophia (Arizona State University), Matthew Peeples (Arizona State University), Jason Sperinck (Arizona State University), M. Scott Thompson (Arizona State University) and Keith Kintigh (Arizona State University)**

[69] *Small Site Testing in the El Morro Valley, New Mexico*

This poster explores small sites in the El Morro Valley, New Mexico during the Pueblo III to Pueblo IV transition (AD 1250 - 1300). The El Morro Valley Prehistory Project has examined a number of these small sites, which were constructed in residential clusters. A two-part site testing program was used: 1) midden excavations at small sites across the El Morro Valley, and 2) intensive excavations of stratified random samples at two small roomblocks in the Los Gigantes

community. Data from excavations suggest that these sites exhibit a range of architectural styles and were occupied simultaneously during the late AD 1200s.

**Kelly-Buccelati, Marilyn (Cotsen Institute of Archaeology, UCLA)**

[45] *Learning from the Ancestors*

Our excavations of the Hurrian city of Urkesh, in northeastern Syria, have uncovered a city dating 3000-1500 BC. Over the centuries certain traditions were rediscovered, particularly in the areas of ceramic production and the carving of cylinder seals. In both cases we have examples of learning by imitation. In the ceramic production, it is clear that when the imitations were produced there were no living practitioners of that type of ceramics, given the long chronological distance between the original and the imitation. The cases for cylinder seal design imitation are two, both imitations of the original design of inferior quality.

**Kembel, John [160]** *see Kembel, Silvia Rodriguez*

**Kembel, Silvia Rodriguez (University of Pittsburgh), Herbert Haas (RC Consultants, Inc.), James Feathers (University of Washington), John Kembel (Carnegie Mellon University) and Jack Johnson (University of Washington)**

[160] *The Chavin Architectural Dating Project: Directly Dating Chavin de Huanter's Monumental Construction Sequence*

Recent research at Chavin has demonstrated that the site's architectural sequence is dramatically different and more complex than traditionally cited Old Temple - New Temple growth. Prior to 2004, radiocarbon dates associated with architecture existed only for the site's final monumental stage, dating its construction significantly earlier than previously believed. The goal of the Chavin Architectural Dating Project, begun in 2004, is to determine absolute dates for the full architectural sequence by using radiocarbon and luminescence methods to directly date construction materials including mortar and stone. This paper presents initial new dates documenting Chavin's architectural growth, and addresses Chavin's place in Andean chronology.

**Kembel, Silvia Rodriguez [160]** *see Haas, Herbert; see Johnson, Jack*

**Kembel, Silvia [49]** *see Feathers, James*

**Kenmotsu, Nancy (Texas Department of Transportation)**

[48] *Insights from INAA about Possible In-Migration of Groups to La Junta de los Rios, Texas*

Small villages begin to appear in the archaeological record of La Junta de los Rios (where the Conchos River of Mexico confluences with the Rio Grande in Texas) around AD 1200. In these first villages, material culture resembles that of the pueblos found in the Jornada Mogollon during the same period. J. Charles Kelly posited that the villages at La Junta developed from a small colony that migrated to this valley from the El Paso area. Recent instrumental neutron activation analysis of sherds from these villages shed new light on the veracity (or not) of this hypothesis.

**Kennedy, William (Dayton Society of Natural History), Jean Copas (Dayton Society of Natural History) and Jill Malusky (Dayton Society of Natural History)**

[10] *Beyond the Site Tour: Engaging the Public through Interactive Learning at a Reconstructed Site*

SunWatch Indian Village/Archaeological Park offers a range of programming options to visitors, enabling staff to teach beyond the limitations of a standardized site tour. Visitors of all ages are served through tours, but also through classes, workshops, educational festivals, scout badges, and a mini-internship. As a reconstructed site, the village permits visitors to directly engage the subject material with their own senses, rather than passively learning from a static display. The village provides an interdisciplinary context for exploring ideas about culture, ecology, and conservation and provides a wide array of experiences to meet the needs of a diverse modern community.

**Kennett, Douglas (University of Oregon)**

[1] *Despotic Behavior, Group Formation, and the Emergence of Social Hierarchies on California's Northern Channel Islands*

This paper explores the emergence of social hierarchies on the Northern Channel Islands with a model that considers habitat suitability, population density, and differential access to resources. Under conditions of intense competition, localized populations are expected to grow, organize, and cooperate to maintain and defend access to the best resource zones. With the expansion of people into increasingly marginal habitats the costs of emigration become higher than being

subjugated by other group members locally. Formation of social hierarchies would be favored under these conditions. The available data from the Channel Islands are consistent with the predictions of this model.

**Kennett, Douglas (University of Oregon), Barbara Voorhies (University of California Santa Barbara) and Thomas Wake (Cotsen Institute of Archaeology)**

[119] *Human Occupation and Environmental Impacts Along the Pacific Coast of Tropical Mexico*  
Evidence for the persistent use of aquatic habitats along the Pacific coast of tropical Mexico is coincident with the near stabilization of sea-level between 7,500 and 5,500 cal yrs. BP. Exploitation of lagoonal, intertidal, and offshore resources varied spatially and temporally after this time as maize-based food production became more viable and hierarchically organized societies emerged regionally. We explore the environmental impacts of changing subsistence strategies on near and off-shore habitats in the vicinity of Acapulco, Mexico based on archaeological and historical records.

**Kennett, Douglas** [149] *see Voorhies, Barbara*

**Kennett, Douglas J.** [19] *see Braje, Todd J.*

**Kerber, Jordan (Colgate University)**

[39] *Summer Workshops in Indigenous Archaeology: Collaboration between Colgate University and the Oneida Indian Nation of New York*

Between 1995 and 2003, Colgate University offered nine two-week summer workshops in archaeology to the Oneida Indian Nation of New York. These workshops, funded largely by the Oneidas, provided more than 100 Iroquois teenagers with hands-on experiences in the limited excavation and laboratory processing of historic and pre-Contact Native American non-sacred remains in Central New York. This paper discusses the workshops' goals (which are not to train Native youth for careers in archaeology), various challenges and benefits of involving an indigenous descendent community in archaeological research, and prospects for continued collaboration.

**Kerns, Eric S. (Williams College), Matthew D. Moriarty (Tulane University) and Ellen Spensley (Boston University)**

[73] *Port Dynamics in the Central Petén Lakes District: Recent Investigations at Trinidad de Nosotros, Petén, Guatemala*

Trinidad de Nosotros is an ancient Maya site on the north shore of Guatemala's Lake Petén Itzá. Trinidad is strategically located near the midpoint of the lake and just 2.6 km from the ceremonial center of Motel de San José. Recent discoveries, including port facilities and elevated densities of trade goods, suggest that Trinidad probably functioned as a port for several phases of its long occupation. Data from recent investigations are used to assess how Trinidad's port function may have developed and changed over time in relation to larger processes involving the Motel de San José polity.

**Kersel, Morag (University of Cambridge) and Christina Luke (Boston University)**

[110] *Good Face or Good Faith? The U.S. Government and Cultural Heritage Protection*

We explore the interplay between cultural heritage protection policy and the funding of foreign conservation, excavation and museum projects by the United States government. While programs do provide much needed assistance, the U.S. government is not consistent in how it evaluates potential proposals or implements international policies. Furthermore these various agencies lack a cohesive inter-agency framework, which would allow for a more holistic and better-funded approach to cultural heritage research and protection. Analyses show that social and political agendas play an instrumental role in the formulation of cultural heritage policy, particularly by the Department of State.

**Keyser, James (USDA Forest Service)**

[137] *A Chronology for Green River Basin Biographic Rock Art*

Although as yet little known, the Biographic rock art of the Green River Basin is a rich corpus of data that spans from about A.D. 1550 to 1870. Our first two years of fieldwork provide sufficient data to begin constructing a chronology of Green River Basin Biographic rock art. Partial or full recording of seven sites shows an evolutionary sequence of five narrative art styles that mimics the already-defined Northern Plains Biographic sequence. The centerpieces of this Green River sequence are the newly-defined Seedskadee and La Barge styles which "bookend" the three century history of narrative rock art in the region.

**Keyser, James** [127] *see Poetschat, Cathy; see Poetschat, George; see Taylor, Michael W.*

**Kidder, T.R. (Washington University)**

[143] *Climate Change and Middle Archaic Mound Builders in the Mississippi Valley: Preliminary Research at the Nolan Site*

Middle Archaic (ca. 6000-4000 Cal BP) mound building is extensively documented in the Mississippi Valley. Well known mound sites, such as Watson Brake, Frenchmen's Bend, and Hedgepeth are all located on Pleistocene terraces overlooking the alluvial valley of the Mississippi or its tributaries. Unlike other contemporary sites, Nolan (5200-4800 Cal BP.) is located in the alluvial valley of the Mississippi River in northeast Louisiana. Preliminary archaeological and geoarchaeological study of well-preserved depositional contexts provides the basis for assessing existing ideas about the role climate played in the development of Middle Holocene mound building in the Southeast.

**Killackey, Kathryn (U.C. Berkeley)**

[145] *Plants and Resource Access at Catalhoyuk: A Paleoethnobotanical Study of Building 3*  
Catalhoyuk is an early agricultural settlement in the Near East with over 1000 years of Neolithic occupation. Paleoethnobotanical research at the site has yielded evidence for the exploitation of a wide range of agricultural and wild plant resources by the site's inhabitants. This paper examines the plant remains from Building 3, a household excavated by the U.C. Berkeley project. These remains are analyzed in context of the site, the surrounding environment and the previous paleoethnobotanical research at Catalhoyuk in order to identify and explore differential access to plant resources during the building's occupation.

**King, Adam (South Carolina Institute of Archaeology and Anthropology) and Keith Stephenson (South Carolina Institute of Archaeology and Anthropology)**

[143] *Woodland and Mississippian Period Settlement in the Middle Savannah River Valley*  
For over a quarter of a century archaeological research has been conducted on the Department of Energy's Savannah River Site (SRS). The SRS is a 310 square mile facility that stretches from the floodplain of the Savannah River to the Sand Hills uplands of the Aiken Plateau in east-central South Carolina. In this paper we summarize the current understanding of how this landscape was used from the Middle Woodland through Late Mississippian periods. What emerges is a unique history characterized by population fluctuations, ethnic diversity, and sometime dramatic social change, all played out against the backdrop of a fairly consistent use of the natural landscape.

**King, Eleanor (Howard University)** [113] *Discussant*; [3] *see Chatman, Kelley*

**King, Stacie M. (Indiana University) and Jeanne Lopiparo (University of California, Berkeley)**

[86] *Materiality, Household Production, and Personhood in the Mesoamerican Past*  
This paper focuses on the contribution of feminist approaches to understanding how social identities were mediated, performed, and reproduced through the production and interaction with material culture and the built environment in the Mesoamerican past. By comparing case studies from the Ulúa Valley, Honduras and Oaxaca, Mexico, we examine how everyday practices from the production of household goods to the reproduction of domestic groups constituted social reproduction at multiple scales. We consider how practice-based approaches to the constitution of personhood illuminate aspects of materiality that provide evidence for the performance and negotiation of multiple social identities on the household level.

**Kinneer, Christopher (Colorado State University / Centennial Archaeology, Inc.) and Lawrence Todd (Colorado State University Department of Anthropology)**

[27] *"I'm Pretty Sure That Thing I Just Tripped Over Ain't Natural:" Hunting Structures in the Absaroka Mountains of Northwestern Wyoming*

During the 2004 field season new hunting structures were identified in three valleys of the Greybull River watershed, in northwestern Wyoming. These structures are situated on open ridges and saddles (~2500-3200 m) and consist of enclosures, stone walls, blinds, and an anomalous platform. The discovery of these structures extends the use of game procurement systems to this portion of the Absaroka Mountains and ultimately broadens the knowledge base associated with prehistoric use of the greater Yellowstone ecosystem. The data gathered from these structures expose a predictable topographic signature with value for understanding high elevation prehistoric hunting strategies in mountain environments.

**Kintigh, Keith** [69] *see Kelly, Sophia; see Schollmeyer, Karen Gust*

**Kipling, Margaret [91]** see *Machovec-Smith, Kimberly*

**Kipnis, Renato (Universidade de São Paulo)**

[140] *The Ethnoarchaeology of Food-Sharing Among the Ache Hunter-Gatherers of Eastern Paraguay*

Sharing of food is a ubiquitous characteristic of egalitarian societies based on a foraging economy. Nonetheless, intra-group resource transfers is diverse in form and extent due to differences that arise in response to a mix of ecological and social factors. In this paper I present a methodological approach, based on faunal analysis, to recognized food sharing behavior in the archaeological context. I am also concerned with the germaneness of applying those techniques to investigate theoretical problems regarding the evolution of food sharing among hunter-gatherers societies. Ethnoarchaeological and ethnographic data relating to Ache society from eastern Paraguay is used in testing food-sharing models derived from evolutionary ecology.

**Kipnis, Renato [30]** see *Silva, Daniela G. Rodrigues*

**Kirch, Patrick (University of California, Berkeley) [119]** *Discussant*; [120] *Discussant*

**Klar, Kathryn (University of California, Berkeley)**

[120] *Linguistic Evidence for Prehistoric Polynesian Contact in Southern California*

Five of the six attested Chumashan languages had a word for the distinctive sewn-plank canoe. The lexical distribution enables linguists to reconstruct an early Chumashan form \*/tomolo'o/, used in common by the ancestors of Central and Island Chumashan speakers. This reconstructed form is odd by Chumashan phonotactic and morphological standards, and unlike normal Chumashan, cannot be further analyzed into constituent parts. The only other North American group to construct sewn-plank canoes, the Gabrielino, also have lexical items ti'at 'plank canoe' and tarayna 'boat' which are grammatically anomalous and otherwise unattested in Uto-Aztecan. In this paper I demonstrate that these forms are not native to Chumashan and Gabrielino, and propose further that they were borrowed from a Central Eastern Polynesian language.

**Klarich, Elizabeth (University of California, Santa Barbara)**

[136] *Shifting Uses of Monumental Space in the Development of an Early Regional Center, Lake Titicaca Basin, Peru*

The site of Pukara (200BC- AD200) was the first regional population center in the Lake Titicaca Basin of Peru. The central architectural core is characterized by a series of massive terraced platforms with sunken, stone-lined structures and scattered mound complexes below. The monumental spaces between the platforms and mounds have received little attention from archaeologists, but recent excavations reveal dense and diverse stratified occupation zones. The nature, permanence, and scale of activity performance in these areas are used to outline major shifts in the processes of site development, forms of leadership strategies, and local responses during the Late Formative Period.

**Klaus, Haagen (The Ohio State University), Manuel Tam (Universidad Nac. de Trujillo) and Cesar Magunia (ICAM)**

[99] *Requiem Aeternam Dona Eis, Domine: Physical and Social Manipulation of the Dead in Colonial Morrope, Peru*

Altered and manipulated burials under the Chapel of San Pedro in Morrope (northern Lambayeque Valley Complex) demonstrate for the first time substantial and diverse interactions between the living and the dead on the historic north coast of Peru. Evidence of prolonged burials, secondary/ossuary burials, the deposition of isolated bones, coffin manipulations, and exhumation correspond to recently recognized pre-Hispanic rituals. Indigenous practices involving dead children, soul transfer, ancestors, social memory, and identity not only persisted, but were fused into the Catholic liturgy, and underscore the enduring cultural and cosmological significance of the dead from the pre-Hispanic to Colonial eras.

**Klaus, Haagen [99]** see *Shimada, Izumi*

**Klein, Richard [77]** see *Avery, Graham*

**Knell, Edward (Washington State University) and Todd Surovell (University of Wyoming)**

[106] *A Test of the Paleoindian High-Tech Forager Hypothesis*

For some time now researchers have viewed Paleoindians as "high-tech foragers" that emphasized bifaces as the centerpiece of their technology and relied heavily on non-local raw

material as part of a mobile lifeway. Bamforth (2002) recently evaluated the efficacy of the high-tech forager hypothesis and found that important parts of our current understanding need reconsideration. Building on Bamforth's research, we test the high-tech forager hypothesis using an expanded database consisting of more published site reports and seven assemblage-level chipped stone analyses from Folsom, Alberta and Cody sites across the northern Great Plains. We evaluate the hypothesis by exploring organizational properties of raw material source selection, core reduction and biface production. While our data generally support Bamforth's recognition that problems exist with the high-tech forager hypothesis, we view adherence to the tenets of the hypothesis as largely an organizational response to contextual factors.

**Knipper, Corina [93]** *see Fisher, Lynn; see Harris, Susan*

**Knoll, Michelle (P-III Associates)**

[75] *Counting Carbs: Paleonutrition and the Changing Use of Montane Ecosystems by Prehistoric North American Farmers*

Built upon a foundation of nutritional studies, this paper will examine how the replacement of geophytes with maize (both good sources of carbohydrates) as a dietary staple during Formative periods may have influenced how and when farmers exploited montane resources. This concept will be explored in conjunction with theories on residential mobility and women's economic tasks, and will be tested against data from sites found in the mountainous regions of Utah.

**Knudsen, Garrett (University of Cambridge)**

[71] *The Archaeology of the Nelson River Aleut*

The Aleut have long been regarded as highly maritime adapted by archaeologists, ethnohistorians, and anthropologists; a closeness to the sea considered pertinent to all elements of Aleut existence. Where this view may be accurate for the greater Aleutians, a region generally lacking in substantial terrestrial resources, inhabitants of the Alaska Peninsula have been able to exploit considerable quantities of salmon for thousands of years. Prehistoric settlement pattern data from the Nelson Lagoon river drainage suggest that an emphasis on salmon exploitation in this area led to a departure from traditionally held views of Aleut subsistence and settlement. Several large sites dating to the last 3000 years contain over 250 surface depressions and large permanent houses constructed of whalebone that are located up to twenty kilometers by river from the Bering Sea. These data are discussed with respect to social complexity, settlement, and salmon fishing and an alternative expression of prehistoric Aleut identity is outlined.

**Knudsen, Garrett [71]** *see Williamson, Andrew*

**Knudsen, Jonathan [71]** *see Huntly, Nancy*

**Koerper, Henry (Cypress College)**

[162] *The Aetiology of Donut Stone Symbolism: Sexualization and Sacralization of a Food Procurement Technology*

Coastal southern California prehistory records a class of ritual objects whose shapes recall centrally perforated bakery doughnuts. This study plumbs the cultural calculus of so-called "donut stones," focusing particularly on the aetiological roles of sexualization and sacralization applied to a food energy procurement technology, viz., the digging stick with its stone weight. The interpretive framework embraces relationships of similarity and of contrast to connect "donut stones" with thematic referents that include duality, fertility/fecundity, increase, and life/death. The basic analytical model employed here extends productively to investigations of other regional talismanic and/or ceremonial phenomena such as birdstones and plummet-like charmstones.

**Kohl, Philip (Wellesley College) [153]** *Discussant*

**Kohler, Tim A. (WSU/CCAC) and C. David Johnson (WSU)**

[89] *"Village:" Ecodynamics of Prehispanic Northern San Juan Region Cultures*

In the context of reviewing recent findings from the "Village" simulation, we question whether archaeologists would be well served by searching for "a specifically archaeological application of computer simulation methods" if that implies cutting ourselves off from stimulating advances in economics, complex adaptive systems, evolutionary ecology, and computer science—all fields that are vastly better funded than archaeology in which simulation approaches are used aggressively and with considerable success.

**Kohler, Timothy [94]** *see Johnson, C. David*



**Koldehoff, Brad [95]** *see* Pope, Melody

**Kollecker, Mark [106]** *see* Eren, Metin

**Kolvet, Renee [94]** *see* Perry, Laureen

**Konstantinov, Mikhail [28]** *see* Buvit, Ian

**Koons, Michele (University of Denver)**

[87] *Integrating Ground-penetrating Radar and Traditional Archaeology at Tiwanaku, Bolivia*  
Ground-penetrating radar has proven to be useful for subsurface exploration of the nearly featureless areas surrounding the major monuments at Tiwanaku. Test excavations of the reflections highlighted in the 2002 geophysical survey within the monumental core refined our knowledge of GPR by correlating actual depths of features with radar reflections. An additional 34,000 m<sup>2</sup> of GPR data was collected during 2004 east of the Akapana Pyramid and north of the Kalasasaya Complex. The results from both surveys indicate the presence monumental structures to the east and north of the Akapana, and a combination of ritual and domestic to the west.

**Koontz, Rex (University of Houston)**

[54] *Playing Coy with Playing Ball: Classic Veracruz Imagery and the Ballgame*  
Brilliant iconographic work in the middle of last century linked the sculptural forms known as the yoke, hacha, and palma with the rubber ballgame. This paper revisits the relationship of these forms to the ballgame in the public imagery of Classic Veracruz. The iconography indicates the playing of the rubber ballgame was a peripheral concern for these elites, and that the fundamental function of ballgame accouterments and masonry ballcourts was to serve as the space of legitimate exchange - of power above all, but also of alliance vows and gifts.

**Kosakowsky, Laura J. (Dept. of Anthropology, University of Arizona)**

[159] *The Problematical Terminal Late Preclassic: Ceramic Evidence from Northern Belize*  
It has been called by many names: The Protoclassic, Holmul I style, the Q Complex, Floral Park, and by Smith at Uaxactun, the Matzanel Phase. This transition from the Terminal Late Preclassic Chicanel into the Early Classic Tzakol has perhaps received more attention and provoked more controversy than any other in Maya ceramic research. Despite the fact that Smith's pioneering work at Uaxactun has become the yardstick by which all other ceramic sequences are measured, evidence from northern Belize would suggest that this transition, marked by experimentation and innovation in ceramic production, was not the same throughout the Maya lowlands.

**Kouchoukos, Nicholas (University of Chicago)**

[92] *Culture, Nature, and Causality in Social and Environmental Change: A Perspective from Southwest Iran*

Throughout his career, Frank Hole has been centrally concerned with the relationship between social and environmental change. Recent geoarchaeological and remote sensing research in southwest Iran by a team from The University of Chicago and the Iranian Cultural Heritage Organization addresses this relationship and builds upon Hole's seminal fieldwork on the Deh Luran and Susiana plains. Preliminary results of renewed research include evidence for changing land use practices in the prehistoric and early historic periods and for their effects on geomorphic, hydrologic, and taphonomic processes. The results have implications for conceptualizing and documenting causality in long term ecological change.

**Kouchoukos, Nicholas [83]** *see* Ghazal, Royal; [92] *see* Barkoukah, Youssef

**Kovacevich, Brigitte (Vanderbilt University) and Zachary Hruby (University of California, Riverside)**

[91] *Towards an Understanding of the Value of Jade in Two Lowland Classic Maya City Centers, Cancuen and Piedras Negras*

Since jade was one of the most durable and obviously highly valued materials to the Classic Maya, based its depiction in art and inclusion in royal tombs and caches, it has a high analytic value for exploring preference structure and restricted exchange in Maya society. This talk uses jade datasets from Cancuen and Piedras Negras to look at the distribution, manufacture, and consumption of jade goods from two distinct geographic regions. The comparison and contrast of one city relatively rich in jade to one decidedly poor in jade has implications for understanding relative values of jade and the crafting process.

**Kramer, Stephenie (OAHP), Joanne Markert (GeoEngineers), Allyson Brooks (OAHP), Tonya Kahui (GeoEngineers) and Stanley Miller (University of Idaho)**

[118] *Protecting Our Past Using Tools of the Future*

The identification and evaluation of archaeological resources that are threatened by construction projects can be a costly and time consuming process. Our predictive model for South Central Washington indicated that within the approximately 5,500 square mile study area approximately 37% of the study area has low potential for archaeology site discovery, approximately 53% has moderate potential and approximately 11% has high potential. Based on the results of our model, the methodology could be effectively applied statewide. Our model provides a useful tool that augments archaeologist's knowledge and may save land-use planners and cultural resource managers valuable time and money.

**Kreutzer, Daniel (University of Wisconsin-Milwaukee)**

[110] *Privatizing the Public Past: The Economics of Archaeological Heritage Management*

The Aztec-era site of la Cañada de la Virgen in Guanajuato, Mexico, is at the center of an ongoing struggle between public archaeology, the state, and private interests. The obligations of national governments toward archaeological sites are being undermined as sites within the public domain are increasingly at risk from private development. The effects of such conflicts go beyond the local to the global community. Archaeologists, charged with protecting the past, must develop a strategy to counter this trend, based on a clearly articulated message that conveys the urgency of the crisis threatening sites like la Cañada de la Virgen.

**Krigbaum, John (University of Florida)**

[43] *Stable Isotopes and Lowland Rain Forest Archaeology: New Data from Niah Cave (Sarawak, Malaysia)*

The extensive human and faunal remains recovered from northern Borneo's Niah Cave provides an unparalleled resource to assess past ecology and dietary diversity using tools of isotope biogeochemistry. New stable carbon and oxygen isotope data derived from tooth enamel are presented and assessed against renewed archaeological perspectives from the site. Isotopic data of the fauna provide an important diachronic proxy of local ecological conditions during late Pleistocene-Holocene occupation. Isotopic data of the terminal Pleistocene-Holocene human remains provide evidence of significant change in dietary habits by mid-late Holocene times, as well as dietary diversity during the Neolithic.

**Krivoshapkin, A.I. [14] see Blickstein, J.I.B.**

**Kruse, Melissa (Arizona State University)**

[69] *Legacies on the Landscape: Agricultural Landscape of Agua Fria National Monument, Central Arizona*

Occupation of the Agua Fria National Monument from A.D. 1250 to 1450 is indicated by several large masonry pueblos and associated agricultural features. The environmental settings of known agricultural features were used to create a predictive model of the prehistoric agricultural landscape. The model indicated that settlement is strongly related to potential farmland. Consideration of where and why people settled in relation to agricultural potential is a large component to understanding the dynamics of prehistoric behavior. This project will aid the larger Arizona State University research identifying prehistoric legacies of human impact on the Agua Fria landscape.

**Kuckelman, Kristin (Crow Canyon Archaeological Center)**

[97] *An Agency-Centered Analysis of the Depopulation of Sand Canyon Pueblo, Southwestern Colorado*

This paper explores the agency of community members at Sand Canyon Pueblo during the final years of occupation of the central Mesa Verde region by ancestral Pueblo Indians. Agency is examined here by the piecing together of evidence of individual lives, events, and sequences of events within a structural framework. The result is a chronicle of acute subsistence stress, changes in subsistence strategy, competition for resources, and escalating conflict-conditions and events that contributed to the demise of this large village and to Pueblo migrations from the region shortly after the onset of the Great Drought in A.D.1276.

**Kuckelman, Kristin (Crow Canyon Archaeological Center) [113] Discussant**

**Kuehn, David (Lone Mountain Archaeological Services, Inc.) [16] Discussant**

**Kuemin Drews, Nicole [151] see Herrmann, Nicholas**

**Kuijt, Ian (University of Notre Dame)**

[121] *Persistence and Extinction of Adaptive Lifeways: Development and Collapse of the Near East Neolithic*

The development of Near East Neolithic Lifeways is often viewed as an inevitable development of cultural evolution, characterized by greater technological, social, and economic complexity. This case study explores the persistence and collapse of the Neolithic as a series of adaptive responses to local conditions. I discuss how cultural traditions can be passed on inter-generationally using concepts of agency and routine practice and outline how community scale ritual and economic changes were interrelated in the abandonment of this Neolithic package.

**Kuijt, Ian** [133] see *Finlayson, Bill*

**Kula, Christine (Pennsylvania Department of Transportation)**

[33] *The First and (Hopefully) Last Roundup: Retrieving Forgotten Collections*

Compliance with Section 106 of the National Historic Preservation Act does not end with SHPO concurrence on a report. With all archaeological studies, and especially data recovery mitigation, the information and knowledge gained resides in field notes, photographs, and artifacts. In the past, proper care of these important materials has been left to chance. However, recently the Pennsylvania Department of Transportation has acted to solve its collection problem. This paper discusses how the Department has addressed nearly 20 year's worth of non-curated collections, within the existing regulatory environment.

**Kulisheck, Jeremy (Southern Methodist University) and Michael L. Elliott (New Mexico Historic Preservation Division)**

[69] *A Proposed Late Prehistoric and Early Historic Phase Sequence for the Jemez Plateau, North-central New Mexico, USA*

The Jemez Plateau of north-central New Mexico has traditionally been considered one of the least known regions of the northern Southwest. It is also among the areas most densely settled by Pueblo peoples in late prehistoric and early historic times. The lack of a sequence for settlement and population has meant that the Jemez Plateau has not been fully incorporated into overviews of Southwestern cultural change. A proposed phase sequence for A.D. 1250-1700 demonstrates that the Jemez Plateau was integral to the processes of migration, aggregation and inter-community network formation that swept the northern Southwest during this era.

**Kulisheck, Jeremy** [94] see *Ramenofsky, Ann*

**Kulow, Stephanie (Arizona State University), Deborah Huntley (New Mexico Highlands University) and Suzanne Eckert (Texas A&M University)**

[69] *Settlement, Land Use and Community Formation Near the Fort Site in the Zuni Region of New Mexico*

Recent research suggests that the late prehistoric Zuni region of New Mexico was characterized by considerable organizational diversity rather than a single, homogeneous tradition as has long been assumed. Our full-coverage survey around the Fort Site, a late 13th century plaza-oriented village, documents intensive occupation of the area immediately prior to and contemporaneous with the pueblo. We use GIS analysis to examine settlement patterns and landscape use around the Fort Site. We combine these data with ceramic typological and compositional data to document processes of aggregation and community formation and explore issues of community organizational scale and social interaction.

**Kunen, Julie (U.S. Agency for International Development) [144] *Discussant***

**Kuntz-Range, Theresa** [60] see *Richards, Heather*

**Kuzmin, Yaroslav V. (Pacific Institute of Geography, Vladivostok, Russia)**

[163] *Obsidian Exchange Networks in Northeast Asia: Recent Progress in the Study of Archaeological Volcanic Glass Sources*

Several sources of archaeological obsidian were identified in the Russian Far East, using INAA data on geological and archaeological specimens. In Primorye (Maritime) Province and the adjacent Korean Peninsula, two main networks centered on the Basaltic Plateau in southern Primorye and the Paektusan (Changbaishan) volcano on the Chinese/North Korean border, existed since ca. 24,000 BP, with exchange distances up to 200-700 km. In Hokkaido and Sakhalin Islands, the two main sources since ca. 20,000 BP were Oketo and Shirataki, with exchange distances up to 1000 km. Several sources of archaeological obsidian remain unknown. Research was supported by CRDF grant RG1-2538-VL-03.

**Kuzmin, Yaroslav V.** [14] see *Keates, Susan*; [163] see *Jull, A. J. Timothy*

**Kvamme, Jo Ann Christein (University of Arkansas), Kenneth L. Kvamme (University of Arkansas), Eileen G. Ernenwein (University of Arkansas) and Christine J. Markussen (University of Arkansas)**

[27] *Four Years of Geophysical Prospecting at Double Ditch Village, North Dakota*

Complete geophysical mappings have been achieved at Double Ditch, a large 10 ha fortified village on the Middle Missouri River. The entire site has been surveyed by magnetic gradiometry, electrical resistance, and aerial thermography, and significant areas have been covered by GPR and electromagnetic induction methods. The magnetic survey revealed two additional fortification ditches and numerous bastions unseen on the surface, as well as thousands of subterranean storage pits, hearths, and middens. These findings are compared against lessons from the other data and extensive archaeological testing in what represents one of the largest geophysical data sets in the continent.

**Kvamme, Kenneth L. (University of Arkansas) and Eileen G. Ernenwein (University of Arkansas)**

[27] *Multidimensional Fusion of Geophysical and Other Data from Army City, Kansas, and Pueblo Escondido, New Mexico*

In this Information Age the integration of data from multiple ground, air, and space-based sensors is an issue of growing concern to archaeological remote sensing. Two large-area studies, one at an historic site in Kansas and another from a prehistoric settlement in New Mexico, illustrate a series of operations that combine information from ground-based magnetic gradiometry, electrical resistivity, electromagnetic induction, GPR, aerial thermography, and air and space imagery. Advanced computer graphics, GIS modeling operations, mathematical transformations, and statistical manipulations are investigated. Results reinforce the belief that the whole is usually greater than the parts.

**Kvamme, Kenneth L.** [27] *see Kvamme, Jo Ann Christein; see Ahler, Stanley*

**Kvamme, Kenneth** [25] *see Hargrave, Michael*

**LaChine, Guy** [138] *see Smith, George*

**Ladah, Ramzy (UNLV) and Alan Simmons (UNLV)**

[133] *The Social Implications of the Architecture at PPNB Ghwair I*

This paper discusses the social implications of the architecture at Ghwair I, a Pre-Pottery Neolithic B site in Southern Jordan. Architecture has long been used to explore social order in an archaeological context, and dimensions discussed here include the following: Changes in locations and the frequency of storage installations, an increase or decrease in both public communal areas and/or structures associated with ritualistic activity and access to them, variations in domestic structures, and inter household spatial organization. These dimensions will be used in an attempt to reconstruct trends in social structure.

**Ladron de Guevara, Sara (Instituto Nacional de Anthropologia e Historia)**

[132] *The Teaching of Archaeology in Mexico*

This paper examines the modality of teaching of archaeology inside and out of the INAH in Mexico. Reaffirming the role of INAH as an institution *sui generis* upon considering inside its own environment the ENAH and the ENCRyM, as reproducers of the same institutional realm. Differences and contrasts between Mexico and the United States are noted in so much as the levels studied and the archaeological profession as practiced. At the same time, this paper will present a quick revision of the contents of the present archaeology programs of the higher level schools in Mexico.

**Lakatos, Steven A. (Office of Archaeological Studies, Museum of New Mexico) and Stephen S. Post (Office of Archaeological Studies, Museum of New Mexico)**

[139] *Interaction, Accommodation, and Continuity among Early Communities in the Northern Rio Grande Valley, AD 200-900*

This paper addresses village development and continuity in the Northern Rio Grande Valley of the American Southwest. Using survey and excavation data, we argue that some regional developments evident in site structure, settlement patterns, and material culture reflect flexible, integrative mechanisms that accommodated ethnic differences and varied economic strategies. Through increased interaction at the household and community level southern semi-sedentary horticulturalist populations integrated with northern, hunter-gatherer bands. Community and group success were promoted by accumulative knowledge, accommodation of difference, and division of responsibility leading to the foundation for the winter-summer moiety system still seen today.

**Lake, Mark (University College London)**[89] *The Uncertain Future of Simulating the Past*

This paper falls in two parts. In the first I dispute the premise that there are any discipline-specific requirements for the successful application of computer simulation techniques in archaeology. Or more precisely, I argue that if there are theoretical and methodological requirements, then they are issues for archaeological theory and method, not simulation theory and method. In the second part of the paper I outline some of the ways in which archaeological theory and method will have to be developed if simulation is ever to achieve the same utility in archaeology that it has in some other disciplines.

Lalo, Marvin [74] *see Poseyesva, Lanell*Laluk, Nicholas [98] *see Welch, John***Lanata, José Luis (University of Buenos Aires) and Arleen Garcia (University of California, Santa Barbara)**[7] *Environmental Corridors and Early Human Dispersal in South America*

Human dispersal is not necessarily a unidirectional process where continental ecological patches must be completely colonized before groups will move to a new patch. Human dispersal can also take place through environmental corridors between patches and/or ecological regions. By spreading through these corridors humans can i) increase the dispersal rates between patches/ecoregions, ii) quickly colonize empty regions, and iii) guarantee metapopulation persistence. We integrate paleoenvironmental and early South American site distribution data in a Geographic Information System (GIS) and discuss in which cases environmental corridors played a significant role in human dispersal.

**Lancashire, Susannah**[150] *Variation in the Reduction of Gainey and Parkhill Complex End Scrapers*

Early Paleo-Indian trianguloid end scrapers from Gainey and Parkhill complex sites in the lower Great Lakes were examined, using a life-histories approach, to determine if temporal variation existed in their morphology. Results indicate that patterned temporal variation in certain reduction attributes exist, which suggest a change in the extent of scrapers' use-lives over time. In this paper, I discuss this variation and hypothesize about its significance using behavioural chain analysis. Such processual analysis highlights the impact of contextual constraints on a tool-makers' design considerations, and ultimately the morphology of a tool.

**Lanehart, Rheta E. (University of South Florida), Robert H. Tykot (University of South Florida), Anne P. Underhill (The Field Museum), Fengshi Luan (Shandong University) and Hui Fang (Shandong University)**[46] *Residue Analysis of Pottery Sherds from Liangchengzhen, Shandong, China*

Pottery sherds at Liangchengzhen, China (Longshan Period, 2600-1900 BCE) were examined for organic residues. Guan jar, pen basin, and ding tripod sherds were sampled at the rim, body and base. Lipids were separated using a chloroform-methanol mix and sonic extraction with additional filtration before nitrogen evaporation. Analysis of the trimethylester (TMS) and fatty acid methyl ester (FAMES) components of the total lipid extract by gas chromatography, gas chromatography/mass spectrometry (GC/MS) and gas chromatography-isotope ratio-mass spectrometry (GC-IR-MS) support the stable isotope values for Liangchengzhen human and faunal dietary patterns.

Landt, Matthew: *see page 194, listed incorrectly as Matthew, Landt*Lange, Frederick W. [162] *see Ciolek-Torrello, Richard***Lape, Peter (University of Washington)**[43] *Feeding the Beasts: Human-Landscape Interactions in Colonial and Post-colonial East Timor*

Recent archaeological research in East Timor has demonstrated how Portuguese and Indonesian colonial policies had major ecological impacts on East Timor's monsoonal forests, and related socio-economic consequences for its inhabitants. Since East Timor's 1999 independence, there has been a revival of some pre-colonial land use and settlement practices, memories of which were maintained during the colonial period in part through the ritual feeding of sacred "beasts" at abandoned village, forest and field sites. Archaeological evidence for long term patterns will be examined, and possible impacts of the revival of old land use practices will be discussed.

**LaPorta, Philip (LaPorta and Associates, L.L.C., Geological Consultants )**[109] *Nomenclature Problems in Quartz Vein and Quartzite Lithic and Quarry Studies*

Identification problems with vein and intrusive quartz, quartzite and mylonite are best solved through the utilization of petrographic thin section analysis. Oriented thin sections reveal the genetic fingerprints of each rock type, permitting the development of a rheological classification system that can direct the researcher towards understanding the tectonic setting of the lithic material. Understanding of raw material lithogenesis permits the researcher to more accurately predict the geologic occurrence and field relations of the lithic material, and hence predict areas where lithic procurement of a specific rock type may have occurred.

**LaPorta, Philip (LaPorta and Associates, L.L.C., Geological Consultants) [109] Discussant;** see Conrow, Michael; see Brewer, Margaret

**Larkin, Karin (University of Denver)**[3] *Interpreting the Colorado Coalfield War Project to the Public*

How do you go about telling a story that is still politically charged to some yet largely forgotten by others? One of the greatest challenges facing archaeologists telling other peoples' stories in a compelling and relevant way that does not diminish the importance of their past. The Ludlow Project examines an event in history that sparked social changes that affect every working man and woman's daily life, yet is often omitted in history books and classrooms. This poster explores how the project developed programs that not only honor the memories of the descendant communities, but also educate a wide audience.

**Larson, Mary Lou (University of Wyoming)**[151] *The Paleoindian to Archaic Transition: The Northwestern Plains and Central Rocky Mountains*

Over the past four decades, researchers working on the Northwestern Plains and Central Rocky Mountains have learned a tremendous amount about the Late Paleoindian and Early Archaic Periods. However, few have considered the interface between these two time periods and what the archaeological observations tell us about cultural transformations that occurred at this time. My paper considers the transition as seen from excavations at Hell Gap, Lookingbill, Laddie Creek, Leigh Cave, and Southsider Shelter, all of which contain deposits dated to both sides of this transition. My paper then places these sites into broader context of regional archaeology and climate.

**Lassen, Robert (Center for the Study of the First Americans - Anthropology Department - Texas A&M University)**[106] *Statistical Analyses of Artifacts from Clovis Cache Sites*

Cache sites from the Clovis era are particularly useful for studying the lifeways of these early peoples. As opposed to campsites or kill sites containing discarded materials, caches hold artifacts in their original condition. This research first examines measurement data from four caches: East Wenatchee, Anzick, Simon, and Fenn. The data are analyzed using cluster analysis to infer morphological similarities and differences among the caches. Additionally, count data from these and other cache sites are used in correspondence analysis to compare Euclidean space with geographical distances. Differences in the content of Clovis caches are used to construct patterns of migration.

**Laub, Richard (Buffalo Museum of Science)**[106] *An Unusual Erosional Feature on Mastodon Tusks from the Hiscock Site (Western New York): Is it of Cultural Origin?*

Of 23 mastodon tusks from the Hiscock Site (western New York), five bear a flattened surface along one complete side. The presence of this "beveling" on the outer wall of the pulp cavity, and the absence of tertiary dentine on the inner wall, suggest the phenomenon is postmortem. The affected tusks are interspersed with normal ones, and no micro-wear is evident on the flat surfaces. Paleoindians are known to have occupied the site, and to have used bones as tools. Thus, while seeking a natural erosional agency to explain this feature, a cultural origin must be considered as well.

**Laughlin, John (University of Wyoming, Office of the Wyoming State Archaeologist)**[106] *150 Refits: Assessing Folsom Site Integrity at Barger Gulch Locality B*

The Barger Gulch Site (5GA195), located in Middle Park, Colorado contains a rich Folsom lithic assemblage. Spatial analysis of the vertical distribution of artifacts suggests preferential upward movement of small artifacts from an occupation surface. This study employs artifact refitting to

assess post-depositional disturbance factors on artifact spatial distributions, and the spatial component of behaviors involved in Folsom lithic tool production and discard. A model of expected vertical artifact distributions is developed and applied to the Barger Gulch assemblage in order to determine if a single or multiple occupations is present. Identified refit complexes are then used to identify the primary agents affecting the observed artifact distributions. Initial results suggest that Barger Gulch represents a single Folsom occupation with limited post-depositional disturbance, providing a unique opportunity to apply refitting data to questions of Folsom behavior.

**Laughner, Becky** [129] *see Britain, Lara*

**Laughner, Rebecca (Kenyon College), Andrew Hass (Kenyon College) and Alex Matlack (Kenyon College)**

[129] *Variation in Early Postclassic Architecture at El Coyote, Northwestern Honduras*  
Prior to the 2004 season, work at Coyote revealed three basic types of Early Postclassic buildings: remodeled Classic platforms, with their multiple, small summit rooms filled to make larger, generally single, rooms; large, open-roomed structures built on platforms, often with a few small, closet-like internal divisions; and smaller open-roomed constructions built on the ground surface. Recent work amplified this sample, adding small, ephemeral structures, some with unusual non-rectangular forms, and surface- and platform-built structures with multiple large rooms. We present this range of construction and its functions, emphasizing spatial arrangements and construction techniques, and compare it to previously-known buildings.

**Lavayen, Carlos** [23] *see Lyons, Patrick D.*

**Lavayen, Carlos (Desert Archaeology, Inc.) and Elizabeth J. Miksa (Desert Archaeology, Inc.)**

[23] *Improving the Framework for Assigning Provenance to Sand-Tempered Ceramics: Examples from the Tucson Basin, Arizona*

Petrofacies modeling is successful in defining sand composition zones from which potters obtained sand to temper pottery. However, natural sand distributions rarely follow neatly delineated borders-petrofacies boundaries are often diffused. Provenance assignment of samples from border locations can be difficult, unlike the easily characterized "central composition" samples in a petrofacies. To address this problem, we present several petrographic and computational techniques, including detailed petrographic grain characterization, averaging of petrographic data to create postulated compositions within a grid of known compositions, and jackknifed discriminant analysis models. These techniques are applied to "problematic" ceramics from sites in the Tucson Basin.

**Lawrence, John** [118] *see Branigan, John*

**Lazcano Arce, Jesús Carlos** [149] *see Hirth, Kenneth; see Serra Puche, Mari Carmen*

**Leap, Lisa** [141] *see Fairley, Helen*

**LeBlanc, David (Universite du Quebec a Chicoutimi)**

[109] *Geochemical Characterization of Lithic Raw Material: Analysis of the Mistassini Quartzite (Colline Blanche, Quebec, Canada)*

One of the most observed archeological lithic materials in the Saguenay-Lac-Saint-Jean region (Quebec, Canada) is a white aphanitic quartzite with the physical properties of a chert: the Mistassini quartzite. Research aims to characterize this lithic material and its geological source. Instrumental Neutron Activation Analysis (INAA) is used to characterize the Mistassini quartzite. The analytical results are validated by simultaneous analysis of geochemical standards. Statistical analysis establishes the broad outline of the geochemistry of the Mistassini quartzite. A geochemical statistical comparison is carried out between the Mistassini quartzite and geological samples of various siliceous materials from northeastern North America.

**LeBlanc, Steven** [25] *see Kay, Paul T.*

**Lechtman, Heather (MIT)**

[42] *The Materials Science of Material Culture*

This symposium presents the results of research in which materials science and engineering and

anthropological archaeology combine, not only in the generation and interpretation of data but in the formulation of research issues and the research program. The materials engineering-material culture approach has had a remarkable impact on our ability to infer cultural patterns of technological behavior within communities and societies of the past. Encouraging students to undertake serious preparation in both archaeology and materials science requires flexible programs of undergraduate and graduate study that enable such preparation. This presentation discusses an MIT, NSF-sponsored experiment in such education.

**Lechtman, Heather [42]** *see Frame, Lesley; see Bicer, Katherine*

**Lee, David (McGill University and Bishop's University)**

[140] *A Description and Analysis of Major Inuit Narwhal Hunting Decisions at the Pond Inlet Floe-edge Utilizing a Decision Flow Model*

This paper outlines major Inuit hunting decisions of the flee-edge narwhal hunt in order to provide insights into modern Inuit narwhal hunting behaviour. The delineation of the entire foraging process was first achieved through the construction of a decision flowchart. The flowchart articulated the major decisions and alternatives that Inuit considered in a particular season and environment with a concise, consistent and logical framework. Secondly, it presented the contextual setting and a baseline amount of information to assess and select the most appropriate and relevant ecological, geographical and social factors to investigate these decisions and explicate current Inuit foraging behaviour.

**Lefevre, Christine [119]** *see Corbett, Debra*

**Leftwich, Brent (University of California, Santa Barbara) and John Ross (Routt National Forest, CO)**

[17] *Investigations at the Muddy Creek Site (5GA2788), Grand County, CO*

Investigations at the Muddy Creek site (5GA2788) attempted to discover the relationship between artifacts found at the site and those at the nearby Windy Ridge quartzite quarry, the possibility of this site as a petrified wood raw material source, and the prehistoric activities and formation processes that created the site. Even though Windy Ridge quartzite dominated the artifact count, archaeological analysis of the artifact assemblage seems to suggest that the primary goals of the site's prehistoric creators concerned hunting activities instead of lithic procurement.

**Lehman, Heather [60]** *see Barela, Tim; [14]* *see Weber, Steve*

**Lekson, Stephen (University of Colorado)**

[94] *Distance and Perception in North American Archaeology*

Distance challenges big pictures: doubts arise from our perceptions of the importance of distance. For example, 140 km - the distance between Chaco Canyon and Mesa Verde - seems sufficient to allow independent, unrelated archaeologies of each area. But 140 kms is not notably distant in the context of the North American regional dynamics. The distance between Mesa Verde and Chaco is not even long, in any useful sense. In this poster, ancient Puebloan geography is compared to that of Hohokam, Casas Grandes, Mississippian, and Post-classic Mesoamerica. These comparisons have implications for North American archaeology and, perhaps, for archaeology in general.

**Lekson, Stephen (University of Colorado) [38]** *Discussant; [154]* *see Windes, Thomas*

**Lelievre, Michelle (University of Chicago)**

[142] *The Industrial Landscape of Northeastern Nova Scotia: Toward a Spatial, Temporal and Social Interpretation*

The proposed paper will present the preliminary results of research conducted during the summer of 2004 into the spatial, temporal and social dimensions of industry and labour in northeastern Nova Scotia from ca. AD 1700 to 1950. The results of archival research, ethnographic interviews and field surveys will be combined in a Geographic Information System to reconstruct changes in the industrial landscape at the macro (e.g., roads and railways), meso (e.g., towns) and micro (e.g., quarries, mills) levels of analysis. The paper will consider how the industrialization of Nova Scotia's landscape affected the native Mi'kmaq population, European settlers and the interactions between these two social groups.

**LeMoine, Genevieve [28]** *see Darwent, John*



**Lenardi, Michael (New York State Museum) and Holly Rushmeier (Yale University)**

[164] *Revisiting Ritchie: Morphometric Analysis of New York State Projectile Points Using Bias Free Capture Methods and Invariant Shape Descriptors*

Released in 1961, "A Typology & Nomenclature for New York Projectile Points," by Dr. William Ritchie, remains an influential resource for Northeastern archaeologists. Dr. Ritchie examined a large and diverse sample of points, though not all fit neatly into his typology during the analysis. With the advent of computer vision, archaeologists using statistical shape analysis can now examine the entire morphological continuum. Besides dealing with pitfalls, both old and new, archaeologists now have to form analytical constructs that can make sense of this data. Using biased free capture methods and invariant shape descriptors may aid in more objective analysis.

**Lenert, Michael (UCLA) and William Prentiss (University of Montana)**

[121] *Bauplan and Lock: The Persistence of Socio-Economic Designs in Northern North America*

In the recent decade, processual archaeologists have begun to explore the utility of concepts derived from paleobiology to better understand the rise, persistence, and death of cultural entities. This paper uses the Bauplan concept to present a compelling case for persistence, replacement, and extinction involving two Arctic cultural entities: Dorset and Thule. This work then argues that archaeological records elsewhere exemplify similar cultural processes and patterns. A discussion of the spread of the collector system in the Pacific Northwest region of North America provides further support for the high utility of evolutionary processualist thinking.

**Lenert, Michael (University of California, Los Angeles) [103] Discussant****Lengyel, Stacey (SRI) [155] Discussant****Lentz, Brett [151] see Hackenberger, Steve****Leonard, Robert (University of New Mexico) [126] Discussant****Leone, Mark (University of Maryland) [110] Discussant****Lerner, Harry (McGill University)**

[150] *Life Histories and Short-term Use: Raw Material and Wear Accrual in Late Archaic Northwestern New Mexico*

Analyses of lithic reduction sequences have often been restricted to more formal technologies including projectile points and other bifacial tool forms. What have often been referred to in the literature as 'expedient' tools, but perhaps better thought of as relatively short-term use implements, also offer potential insights into technological organization. Specifically of interest in the present study is the role of lithic raw material type in the reduction sequences or life histories of relatively short-term use implements recovered from four Late Archaic to Early Basketmaker II sites in San Juan County, Northwestern New Mexico.

**Lester, Robert (U.S. Attorney's Office, C.D. CA.)**

[138] *Using Civil Penalties and Common Law Principles to Protect and Recover Archaeological Resources*

Criminal prosecution or forfeiture for the theft or damage to an archaeological resource are not always appropriate. There are other ways to protect or recover the resource. A federal agency can seek a civil penalty to recover damages for violation of ARPA or other statutes. Otherwise, a litigant can file a lawsuit invoking common law remedies to recover the resource or to obtain damages. Special rules apply for abandoned resources and to resources found on vessels in distress. Finally, disinterested custodians of resources can file a lawsuit to resolve conflicting ownership claims.

**Lesure, Richard (University of California, Los Angeles) and Jennifer Carballo (University of Michigan)**

[149] *The Transition to the Formative in Central Tlaxcala: Implications for Understanding Larger Mesoamerican Patterns*

Should the appearance of Formative villages in Mesoamerica be modeled as a series of independent shifts to sedentism, or did centers of development generate population expansion and colonization? Independent transitions have dominated thinking since the New Archaeology gave migration a bad name, but recent work on population expansions deserves attention. Data from central Tlaxcala, settled by agriculturalists only after 1000BC, support a model for the

Central Mexican Highlands involving population dispersions from prime agricultural areas. Yet the independent-transition and population-expansion models need not be antagonistic; both are relevant for understanding the Formative transition, with their interrelationships involving questions of scale.

**Leveillee, Alan (PAL)**

[124] *Quonochontaug- The Evidence for a Woodland Period Village in Southern New England*  
For the past three decades, archaeological evidence for Native American villages in southern New England has been evasive. Did they exist? Where might they have been? Recent excavations along coastal Rhode Island are providing the answers.

**Levine, Abigail (Stanford University)**

[136] *The Chimú-Inka Style: The Importance of Hybridization to the Study of Culture Contact*  
Chimú-Inka pottery from the Peruvian North Coast illustrates how the material record can be used to understand the nature of "culture contact" among prehistoric societies. This hybrid style was produced following Inka conquest of the Chimú Empire in AD 1470, and combines features from both cultures. An analysis of mold-made Chimú-Inka monkey effigy vessels with respect to production, form, and style has revealed evidence of post-contact social change. Although the Inka incorporated local forms into their ceramic repertoire, the alteration of these forms and the reorganization of production indicate an attempt to destabilize the Chimú political economy.

**Levine, Jane (US Department of Justice)**

[138] *U.S. Customs Laws and the Protection of Archeological Property*  
This paper will discuss the application of various federal laws to international trafficking in stolen art and cultural property. Using hypothetical fact scenarios, the paper will enumerate the elements of important statutes relevant to international cultural property protection, including, the Cultural Property Implementation Act, 19 USC' 2601-13 (which implements the 1970 UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property.) The paper will touch on the two basic types of import restrictions imposed by the CPIA -1) Designated Archeological or Ethnological Material and 2) Stolen Cultural Property - and will explain the CPIA provisions for repatriation and compensation. The paper will further discuss certain criminal statutes applicable to international art and cultural property crimes, such as the National Stolen Property Act (NSPA) - 18 USC §§ 2314 and 2315, as applied to archeological property taken in violation of foreign national ownership laws. The paper will set forth the principles established in the McClain cases, 545 F.2d 968 (5th Cir.1977) and 593 F.2d 658 (5th Cir. 1979) and *United States v. Schultz*, 333 F.3d 393 (2d Cir. 2003). Other laws to be highlighted include the customs laws prohibiting smuggling and making false statements - two methods by which stolen cultural property is brought into the United States for sale. 18 USC §§ 542 and 545. Finally, the paper will present examples of how certain federal forfeiture laws come into play in the retrieval and return of stolen cultural property. Statutes to be discussed in this context include 19 USC § 1595a, which can be applied to forfeit property that is stolen, smuggled, or clandestinely imported or introduced, see, *United States v. One Lucite Ball Containing Lunar Material*, 252 F. Supp.2d 1367 (S.D. Fla 2003), as well as the all-purpose forfeiture provisions contained in title 18, sections 981 through 983 which can also apply to stolen cultural property.

**Levine, Marc (University of Colorado at Boulder) and Devin White (University of Colorado)**

[52] *Recent Excavations at the Comb Wash Great House Site, San Juan County, Utah*  
The University of Colorado recently completed three seasons (2002-2004) of archaeological explorations at the Comb Wash Great House site near Blanding, Utah. Test excavations focused on middens, kiva-like depressions, and room block areas within the main structure. Both ceramic and architectural analysis suggest that the great house dates to the Pueblo III Period (AD 1150-1300)--after the collapse of the Chacoan regional system--and appears to be a local development. Other great house communities in the greater northern San Juan region that are contemporary with Comb Wash will be discussed for comparative purposes.

**Levstik, Linda S. [113] see Henderson, A. Gwynn**

**Lewis, Brandon (Santa Monica College) and Hubert Robichaux (University of the Incarnate Word)**

[91] *An Examination of the Political, Social, and Ideological Significance of the Hieroglyphically Inscribed, Late Classic Vessel from El Pedernal, Guatemala*  
The discovery of a Late Classic hieroglyphic vessel at the lowland Peten site of El Pedernal,

Guatemala, provides an ideal opportunity to examine the nature of Maya social and political rulership. Controlled excavation, glyphic translation, and neutron activation analysis of the Pedernal Vase contribute to our understanding of 1) Late Classic political relations among the Peten sites of Rio Azul, Uaxactun, and El Pedernal, 2) the duration of Rio Azul's royal lineage, 3) elite controlled exchange systems as avenues of creating horizontal and vertical lines of obligation, and 4) the role of attached specialization in Late Classic Maya political economy.

**Lewis, Brandon [108]** *see Saul, Julie*

**Lewis, Krista (University of Chicago)**

[47] *An Islamic Flavor: Cooking and Social Change in Highland Yemen*

Traditional households in Yemen are designed to maximize privacy, a fact usually attributed to Islamic religious principles that advocate the segregation of women from the eyes of men. However, similar domestic arrangements emerged long before the advent of Islam. The initial shift occurred in highland Yemen between the second and first millenniums BC when food processing and cooking changed from communal activities to focus on individual families living and working primarily indoors. The long-term history of pre-Islamic cooking practices in Yemen sheds light on social concerns which contributed to the development of a major world religion.

**Lewis Johnson, Lucy (Vassar College) [150]** *Discussant*

**Lichty, Norman (Cal State University at Los Angeles)**

[162] *A Place and Space Explanation for Painted Rock on the Carrizo Plain*

Painted Rock Monument in the Carrizo Plain of Central California may be the most heavily painted rock art site in North America. While the rock art has been recorded by numerous researchers, none have attempted to explain why this feature was selected as the focus of so much apparent ritual activity. This study employs a space and place approach to address this question. The physical layout of Painted Rock replicates the major features of Mesoamerican cosmological models of the earth at the moment of creation. Landscapes modeling the primordial scene are often the focus of ritual activity cross-culturally.

**Liebmann, Matthew (University of Pennsylvania)**

[20] *Introducing Postcolonialism to the Archaeology of Native America*

This paper examines the applicability of postcolonial theory to archaeology, with a particular emphasis on the relationship between archaeology and Native America. A short introduction to postcolonial theory is presented, followed by an examination of the postcolonial condition in North American archaeology. Issues addressed include the role of archaeology in the creation of an essentialized Euro-American view of Native Americans, an examination of NAGPRA in the light of postcolonial theory, and the role archaeology can play in the creation of new postcolonial histories of Native America.

**Lightfoot, Kent (University of California, Berkeley)**

[39] *Tribal, Agency, and Academic Collaboration: The Creation of the Kashaya Pomo Interpretive Trail*

This paper considers the collaborative creation of an archaeological interpretive trail in the Fort Ross State Historic Park that highlights Native perceptions of Russian colonialism (1812-1841) in northern California. The research and teaching components of this on-going field school program have been significantly influenced by the cooperative participation of the Kashaya Pomo, California State Parks, and the University of California, Berkeley. This paper discusses three aspects that have been transformed by tribal, agency, and academic collaboration: 1) innovations in research design and field methods; 2) integration of Native oral history into archaeological interpretations; and 3) new ways of thinking about public outreach.

**Lightfoot, Kent (University of California, Berkeley) [161]** *Discussant*

**Lightfoot, Ricky (Crow Canyon Archaeological Center)**

[10] *Crow Canyon's Pueblo Learning Center: From the Ground Up*

In 2003, the Crow Canyon Archaeological Center completed construction of a teaching facility that is designed to look and feel like a twelfth century Pueblo house from the Mesa Verde region. The structure functions as a classroom where students gain an understanding of what daily life might have been like in the Pueblo III period. This presentation focuses on the need for such a facility on the Crow Canyon Campus, as well as the story of its construction. Issues such as the design of the structure, its authenticity, safety concerns, long term durability and maintenance, and construction costs are addressed.

**Lilley, Ian (University of Queensland)**[20] *Archaeology, Indigenous Diaspora, and Decolonization*

Diaspora is a phenomenon usually associated with people living at a significant remove from their homeland but is emerging as a useful way of approaching the contemporary situations of colonized indigenous peoples, especially in settler societies like those in North America and Australia. Although not without problems, notably from the perspectives of the aboriginal peoples in question, the application of diaspora theory to relations between colonized and colonizer could help advance the reconciliation of archaeological and indigenous interests.

**Limp, W. Fredrick (University of Arkansas) [37] Discussant****Lindeman, Michael [139] see Wallace, Henry****Lindner, Christopher (Bard College)**[3] *Guineatown of Hyde Park: Historical Archaeology of a Rural Free and Fugitive Slave Community*

Excavation is uncovering the 1780s-1840s house foundation of Primus and Elizabeth Martin, leaders of an African-American community called Guinea, in the mid-Hudson Valley of New York. Testing is underway at four nearby domiciles along Fredonia Lane. Period notebooks indicate the Martins 'owned quite a farm' and their neighbor, recently freed Artemis Quackenbush, labored as a gardener for an elite 'river family.' The slave-owning Bards were nationally prominent physicians and educators, engaged in scientific agriculture, and developed a strong church community on their estate, Hyde Park. The Episcopal records reveal an interdependence of people at extreme positions in the socio-economic spectrum.

**Liot, Catherine (Universidad de Guadalajara), Susana Ramirez (Universidad de Guadalajara), Javier Reveles (Universidad de Guadalajara), Otto Schondube (Centro Instituto Nacional de Antropología e Historia Jalisco) and Rosario Acosta (Universidad de Paris I)**[149] *Some Insights into Formative Period Social Transformations in the Sayula Basin, Western Mexico*

Recent archaeological research in the Sayula basin provides evidence from the Early Formative to the beginning of the Late Formative. Although dealing with isolated findings, analyses of material culture and the spatial patterning of domestic and funerary spaces suggest both local cultural continuity throughout the Formative period and gradual transformations leading to higher social complexity by the end of the Formative and the beginning of the Classic period, during the Shaft Tomb tradition of Western Mexico. The study presents insights into the evolution of settlement patterns and exchange networks of foreign raw materials and manufactured products throughout the Formative period.

**Lipe, William (Washington State University) [34] Discussant****Lipo, Carl (California State University, Long Beach) [80] Discussant****Lippert, Dorothy (Smithsonian Institution)**[74] *The Archaeologist's Indian, the Museum's Indian and the Indigenous Indian: How to Respect the Ancient People We Serve*

Stereotypes about early Native Americans continue to exist within American society. Many are illustrated in popular accounts of recent archaeological discoveries, controversies such as the Kennewick case and traditional museum exhibits. Indigenous archaeology derives from a perspective that the ancient people being studied are worthy of the same sort of respect that contemporary Native people demand, and scholars working under this viewpoint should acknowledge the impact that archaeology has on Native stereotypes. By actively working to promote accurate perspectives of ancient Native peoples, archaeologists can more logically claim that our work is ethical and of benefit to the broader society.

**Lippert, Dorothy (National Museum of Natural History) [165] Discussant****Lips, Elliott [105] see Sikes, Nancy****Little, Barbara (National Park Service) [113] Discussant**

**Livingood, Patrick (University of Michigan) and Katherine Spielmann (Arizona State University)**

[29] *Ritual, Politics, and Exchange: Acquiring the "Other" in North American Prehistory*  
In his seminal paper "Barter, Gift, or Violence" Dick Ford made the case that individual Pueblo needs for paraphernalia that were used in ritual performance drove intertribal exchange in the US Southwest. In this paper we take this argument further and explore the relationship between political structure and the acquisition of exotics necessary for ritual participation in three case studies involving Pueblo, Hopewell, and Mississippian peoples. Although there were diverse means of acquiring ritual exotics in each case, variability in procurement patterns across these cases appears closely related to variability in strategies for political prominence and influence.

**Lizama-Rogers, Lilia [142]** see Mathews, Jennifer

**Lockard, Gregory D. (Los Alamos National Laboratory and the University of New Mexico)**

[18] *The Chimú Occupation of Galindo, Moche Valley, Peru*  
Galindo is well known by Moche archaeologists as the urban capital of a small, regional polity on the North Coast of Peru during the Late Moche period (AD 600 - 800). What is less well known, however, is that the site was reoccupied several hundred years later, during the Late Chimú period (AD 1300 - 1470), by a small, residential community. This paper will present an introduction to the nature of the Chimú occupation of Galindo, as well as a comparison, in terms of site function, architecture and economy, of Galindo's Moche and Chimú occupations.

**Lockard, Gregory D. [69]** see Nisengard, Jennifer E.

**Lockhart, J.J. (Arkansas Archeological Survey)**

[118] *An Integrated Approach for Reconstructing Past Cultural Landscapes Using GIS*  
This research involves reconstructing elements of prehistoric cultural landscapes at multiple scales. The work describes an integrated research design for defining and examining both natural and cultural components through the use of digital tools and datasets including a statewide database of archeological sites and projects, a statewide geographic information system (GIS), geophysical remote sensing, precision surveying and mapping, ethnographic and archeological research, and exploratory data analysis techniques.

**Loendorf, Lawrence (New Mexico State University)**

[79] *The Changing Rock Art Tradition in Southeastern Colorado*  
One petroglyph tradition on the Piñon Canyon Maneuver Site in southeastern Colorado includes images that replicate communal big game drives. Petroglyphs are found in the arrangement of drives with net images and animals directed toward these nets by spread-armed drovers. These petroglyphs end abruptly to be replaced by shields and figures with heart lines. Jicarilla Apache offer considerable knowledge regarding the latter figures.

**Lohse, Skip (Idaho State University), Corey Schou (Idaho State University), Albert Strickland (Idaho State University), Dorothy Sammons (Idaho State University) and Robert Schlader (Idaho State University)**

[60] *Stone Tool Analysis in a Digital Environment*  
Stone tool analysis in a digital environment improves classification of manufacture and use-wear, documentation of analyses, dissemination of information, and analytical rigor. Our system uses readily available imaging software and equipment. The manual (online, html, pdf) emphasizes an interactive learning environment, and contains textual overviews, image catalogs, and comprehensive glossaries and bibliography. Analysts can conduct explicit, systematic analyses and easily share information. This paper presents our work in defining and documenting stone tool landscapes using low- and high-power microscopy, particularly in definition of edge and areal values.

**Lombard, Marlize (Natal Museum) and Lyn Wadley (Natal Museum)**

[21] *Blind Testing for the Recognition of Residues using Light Microscopy: Results and Lessons learnt*

Fifty-four stone flakes were produced for a series of four blind tests. Some were hafted and used for the processing of plant and animal products. Tools for tests 1, 3 and 4 were used to assess the identification skills of the analyst who was not provided with any information prior to conducting the analysis. High scores for recognition of residues and tasks performed were obtained (between 85 and 100%). Tools for test 2 were used to study the effects of acidic, organic-rich deposits on plant and animal residues. Sixty-seven additional tools with residues

were produced to address problems identified during the first three blind test sessions (tests 1-3). These were used together with those from the blind tests in preparation for performing the fourth blind test in the series, which resulted in the highest score.

**Long, Montana [88]** *see* Henrikson, L. Suzann

**Longacre, William A. (University of Arizona)**

[135] *In the Service of Archaeology*

Ethnoarchaeology provides information of great potential use for archaeological interpretation. Several examples from recent work in the Philippines are discussed here. Included are studies that explore the link between pottery standardization and the degree of specialization of the producers. Also, I use residue analyses, as presented by Skibo based upon his Kalinga work, in the interpretation of cooking pottery recovered from a site in northern Luzon in the 1960s. Of great interest is the evidence from residue studies of this material to see if rice cooking is evidenced in the cooking pots.

**Longacre, William [46]** *see* Rider, Micala

**Loosle, Byron (Ashley National Forest)**

[75] *Fremont Use of Upland Resources*

Considerable recent discussion has revolved around Fremont era economic strategies and the identification of Fremont farmers versus Fremont foragers. Research in northeastern Utah has demonstrated that during the Fremont era, people heavily exploited the upland resources of the Uinta Mountains logistically during the fall months, presumably after their fall harvest. Annual forays into the uplands to secure selected key resources may have helped supplement domestic crop production. This economic strategy allowed the Uinta Fremont to persist in a farming lifestyle much longer than the Fremont in other areas, in spite of climatic degradation.

**Lopez, Carlos E. (Universidad Tecnológica de Pereira)**

[7] *InterAndean Landscape Evolution and the Peopling of Northern South America*

Current interpretations of early population arrivals to northern South America have not considered enough the magnitude of landscape transformations, particularly the dramatic effects of Andean deglaciations and volcanism activity. Studies along the Magdalena inter-Andean Valley (Colombia) discuss preservation or archaeological early record and antiquity of bifacial assemblages. Recognizing long scale landscape transformations provides new light to predict the presence and absence of early sites and to interpret age, settlement patterns, mobility and cultural affiliation of the early tropical South Americans.

**López Bejarano, Jose Maria (DINAR) and Ashley Heaton (Tulane University)**

[87] *Monumental Constructions and Reconstructions: Excavations along the Kalasasaya and Chunchu Kala Complexes*

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 Varela, Sandra L. (Stanford University/UAEM)**

[159] *The Processual Myth of Mesoamerican Pottery Analysis*

The Boasian framework of the historical causality in the spatial and chronological ordering of archaeological remains was shadowed with the scientific framework of the New Archaeology. This type of analysis, based on the qualitative attributes of pottery, supports the history of Mesoamerica. Recent analyses incorporate the use of archaeometry to reveal the provenance or the chemical and mineralogical composition of Mesoamerican pottery. Instead of satisfying the goals of chemistry or physics and those of the type:variety system, use of archaeometry to study pottery from K'axob addresses human behavior throughout its history of occupation.

**Lopez-Hurtado, Luis Enrique (University of Pittsburgh)**

[136] *The Lurin Valley Before the Inkas: A Study of the Late Intermediate Period Settlement Patterns on the Peruvian Central Coast*

During the Late Intermediate Period in the Peruvian Central Coast the oracle of Pachacamac was

perhaps the most important religious and political center and it have been intensively studied since the beginning of the last Century. However, to get a better understanding of this region before the Inka occupation is necessary to see Pachacamac inside the system formed by the other contemporaneous sites in the Lurin valley. In 2004 the Lurin valley project have collected data that aloud us to formulate a first approach to the study of settlement patterns in the Lurin valley during this period.

**Lopinot, Neal** [40] *see Ray, Jack*

**Lopiparo, Jeanne (University of California, Berkeley)**

[166] *Ritual Landscape and Heterarchical Integration of the Late to Terminal Classic Ulua Valley*  
The Classic Ulua Valley was organized heterarchically, with no single center controlling smaller sites. Neighboring settlements were linked through exchange, including exchange of household-produced ceramic objects used in household-based rituals associated with the life course of people and of houses themselves. Excavations at four archaeological sites in the central valley provided large samples of artifacts and features for analysis. Compositional studies (using INAA), stylistic analysis of figural artifacts, and landscape analysis of orientations of burials and groups of monumental buildings are combined to support a model of the social organization negotiated by actors participating in this ritual economy.

**Lopiparo, Jeanne** [86] *see King, Stacie M.*

**Lordkipanidze, David** [62] *see Adler, Daniel*

**Loring, Stephen (Arctic Studies Center, Smithsonian Institution)**

[39] *Young People Are the Future of the Past: Community Archaeology in Labrador*  
In Labrador, some Inuit and Innu villages are only a generation or two old. Although the inroads of the modern world are pervasive and ubiquitous, attachments to the land, language and a subsistence-based economy remain at the core of older people's identities. Today the specter of socio-economic malaise, fueled by limited employment opportunities and in extreme cases by village poverty and substance abuse, threatens to divorce young people from an awareness of their heritage. Community archaeology initiatives bring elders, archaeologists, and young people together to participate in field schools that seek to reinforce community values and traditions.

**Loubser, Johannes H.N. (New South Associates, Inc.)**

[59] *Beyond the Cartesian Grid, or, Thinking between the Comic Cells*  
Archaeologists largely work with concrete material objects and locations in contexts that facilitate the graphic recording, analysis, and dissemination of their information. But the social and physical contexts and theories that inform their selection and interpretation of these objects remain "invisible." "Archaeology: The Comic" is, in part, a personal attempt to pictorially grapple with the so-called "intangible" aspects of archaeology.

**Loughlin, Michael (University of Kentucky)**

[157] *Architectural Patterning and Political Organization at El Mesón, Veracruz, Mexico*  
The area around the archaeological site El Mesón has been recognized for the presence of numerous earthen mounds (Coe 1965:679). However, until recently these architectural features had received only scant archaeological attention. In 2003 the Recorrido Arqueológico El Mesón recorded over 300 individual architectural features within the 23 km<sup>2</sup> survey area. This paper focuses on the patterning of civic-ceremonial architecture in the El Mesón area as an indicator of political organization. A diachronic analysis of form, function, and layout of mound groups is used to infer political organization, as well as to track changes in political strategies used by leaders.

**Lovata, Troy (The University of New Mexico)**

[59] *Drawn to Archaeology*  
This paper examines the role that non-textual and juxtaposed image/text forms of communication play in the practice of archaeology. It posits that visualizing the past and putting forward a visual record of how we operate is fundamental to the discipline. It shows, using examples of my own and others comic books, cartoons and zines, that visual works present unique and necessary narratives about the past for professional and public alike.

**Lowe, Lynne (UNAM) and Mary Pye (NWA, Brigham Young University)**

[81] *Mixe-Zoque and Mayas: A Revision*  
Gareth Lowe made significant contributions to general understandings of early Mesoamerica and

Chiapas. In particular, he was always concerned with the broad issues of peoples, their language, beliefs, customs, and behavior. As the director of many excavations, especially at Chiapa de Corzo and Izapa, he was interested in the Mixe-Zoque, the Maya, and the relationship between these two groups. This paper will synthesize Lowe's major ideas about the prehistory of the Mixe-Zoque and the Maya in Chiapas prehistory. It includes his most recent thinking on this topic that has not yet been published.

**Lowell, Julia (University of Northern Iowa)**

[158] *Survival Strategies of Gender-Imbalanced Migrant Households in the Grasshopper Region of Arizona*

Beginning in the late thirteenth century, the Mountain Pueblo people of the Grasshopper region of Arizona hosted an influx of Anasazi migrants from the conflict-ridden Colorado Plateau. Multiple lines of evidence indicate that this migrant population was typical of warfare refugees everywhere; it had high numbers of women and children and low numbers of men. The resulting gender-imbalanced households were challenged by poor access to prime agricultural land and a shortage of men to provide meat. This investigation focuses on the strategies these migrant women used to keep themselves and the dependents within their households fed and housed.

**Lowry, Justin [50]** *see Ardren, Traci*

**Luan, Fengshi [46]** *see Lanehart, Rheta E.*

**Lucas, Steve (Nez Perce National Forest)**

[36] *The Bear Creek Locale in Upper Selway River Prehistory*

Site NZ-6-20, located along the Selway River in central Idaho, is a prehistoric hamlet deep within the Clearwater Mountains. Located 148 river miles above the Lewiston Basin, the site is composed of numerous house features and a rich artifact assemblage. Early 20th century Nez Perce oral histories indicate the vicinity as the locale from which the Tribe emerged onto the southern Columbia Plateau. Due to notable streamside erosion and effects from fire, the U.S. Forest Service has established an erosional monitoring plan, conducted limited testing to establish site boundaries, and recorded oral histories with the Nez Perce Tribe.

**Lucero, Lisa J. (New Mexico State University) and Sherry A. Gibbs (Tourism Development Project, Ministry of Tourism, Belize)**

[72] *Times of Trouble: The Creation and Sacrifice of Witches among the Ancient Maya*

Worldwide, witch persecution occurs in times of trouble including drought, floods, famine, and disease. Supplications work to no avail, thus someone has to be blamed. Someone is at fault, someone who is perceived as maliciously bringing misfortune to the community. And they have to pay, often violently. In the Maya area, human remains in non-burial ritual contexts, such as partial remains in architectural floors and caves, might reflect the killing or punishment of witches. We explore witch persecution as a possible explanation for the non-ancestral deposition of human skeletal remains in non-elite residences and caves in the eastern Maya lowlands.

**Luchetta, Sarah (University of Arizona)**

[94] *Migration in the Lower San Pedro Valley, Southeastern Arizona: A Comparison of Upland and Lowland Sites*

Over the last decade, intensive archaeological research has taken place in the San Pedro Valley, shedding light on settlement and subsistence activities of prehistoric people in Southeastern Arizona. The Twinn Hawks site, located in the upland region of the lower San Pedro Valley, serves as a unique comparative case to study migration and subsistence patterns between riverine and upland sites in the valley. Ceramic and flotation studies of this site are used to address larger issues of interaction and cultural identity of the San Pedro residents.

**Luchsinger, Heidi (Department of Anthropology, Texas A&M University) and Luciano Prates (Universidad Nacional de La Plata, Buenos Aires, Argentina)**

[49] *Geoarchaeology of the Middle Rio Negro Valley in Northern Patagonia, Argentina*

The Rio Negro, the largest river in southern South America, lies on the boundary between the Pampas and Patagonia. Although a potentially rich location for human settlement during the Holocene, this region has been investigated only recently. Survey and excavation of the middle Rio Negro Valley have revealed a substantial archaeological record for the Holocene in addition to a complex stratigraphic record. Geoarchaeological fieldwork was conducted to reconstruct the landscape and paleoenvironmental history during human occupation. This allowed investigators



to evaluate site formation processes, site representation, settlement patterns, and detect potential human responses to climate change.

**Luke, Christina (Boston University)**

[166] *Travesia and the Patronage of Production of Classic Period Ulua Marble Vases*  
Technical, stylistic, and contextual analyses of Ulua marble quarries and vases supports identification of Classic period Travesia as a probable center of production of these luxury goods. Introduced when polychrome pottery was already used as a form of elaborate craft product, and with stylistic relations to polychromes, Ulua marbles were distinctive luxury products that circulated widely outside the valley. The focus here will be the local level and explore the of production of Ulua marbles as one of several strategies by which Travesia elites attempted to create a more centralized place for themselves in Late Classic valley society.

**Luke, Christina [110]** see Kersel, Morag

**Luna, Gregory (Penn State University)**

[118] *Multiscalar Analysis of Sites in the Basin of Mexico: Potentials and Limitations of Settlement Pattern Analysis Based on Ripley's K-function*

Collection, management and visualization of archaeological settlement data have steadily advanced with the development of Geographic Information Systems and related geospatial technologies. However, settlement pattern analysis has changed little over the past three decades. With regards to the development of complex society, temporal settlement map series with accompanying site-size histograms depict the appearance and elaboration hierarchical political systems. This study uses multiscalar point pattern analyses based on Ripley's K-function to analyze early political developments in the Basin of Mexico. Originally developed in the 1970's, these analytical techniques are increasingly accessible to the non-statistician due to current hardware and software developments.

**Lundquist, Lance (University of New Mexico)**

[56] *McEuen Cave Lithics and the Adoption of Agriculture in the North American Southwest*  
Lithic tools and debitage represent by far the most common artifact class at McEuen Cave (AZ W:13:6 ASM). In fact, one could reasonably estimate the count of lithics at McEuen Cave at five million pieces. In this presentation, the results of a lithics analysis, using a modified version of the Sullivan and Rosen (1985) system, are presented. Results indicate that there was a gradual change over time in lithic technology, with a decreased reliance on formal tool production. The implications for the Archaic of this gradual change in lithic technology and the early evidence for domesticates is discussed.

**Lundquist, Lance (University of New Mexico) [56]** Discussant

**Lupo, Karen D. (Washington State University)**

[140] *The Archaeological Implications of Different Small Prey Hunting Technologies Used by Central African Foragers and Farmers*

This paper presents data on differences in the use of small prey hunting technologies used by neighboring foraging and farming populations in the Central African Republic. Farming populations focus their hunting efforts on techniques that procure a wider variety of small-sized prey than the techniques used by foragers. Choice of hunting technology by foragers and farmers is linked to differences in the trade-off's between hunting returns and competing subsistence opportunities. The differences in choice of hunting technology have implications for current interpretations of taxonomic measures in faunal assemblages and, especially the use of the prey choice model.

**Lurie, Abbie (DePaul University), Selena Anders (DePaul University) and Jane Eva Baxter (DePaul University)**

[24] *The Numbers behind the Numbers: Perceptions versus "Reality" in Archaeology Today*  
Utilizing the 2003 SAA Member Needs Assessment Survey, this quantitative study asks the question, "How do perceptions of women's issues in archaeology compare to documented information pertaining to the archaeological community?" This study compares the survey results with documented information about archaeological practitioners including the number of men and women working in the field, the frequency of journal authorship, level of participation in conferences, and positions held in academia and other professional positions.

**Lusteck, Robert (University of Minnesota)**

[21] *Residues of Maize in North American Pottery: What Phytoliths Can Add to the Story of Maize*  
While much of this symposium focuses on chemical residues, I would like to highlight the physical residues. Food residues, such as encrustations on pottery, provide an excellent media for the preservation and recovery of micro-botanical remains, especially opal phytoliths. Phytoliths are extremely durable and do not degrade in this context. Once the organic matrix is dissolved, the remaining silica may be analyzed to determine what plants were being prepared in the pot. Therefore, they make a great source of data that complements chemical residue analysis. In this paper, I will discuss my findings from North American samples.

**Lycett, Mark T. (University of Chicago) and Kathleen D. Morrison (University of Chicago)**

[8] *The Lives of South Indian Places: Biography, Memory, and Situated History*  
Place is an immediately accessible, almost intuitively obvious analytical construct: an historical, physical, affective and perspectival context of experience. We suggest, however that it is crucial to understand social space as produced and place-making as a situated and historical process. Places simultaneously embody and evoke history while acting as a repertoire for subsequent spatial practice and providing the raw material for the constitution of social geographies. Drawing on archaeological and historical contexts from Pre-Colonial South India, we consider how places are made, remembered, reconstituted, appropriated, and historicized as a creative and fluid process of instituting claims about the past, heritage, and the nature of the present.

**Lyman, R. Lee (University of Missouri) [126] Discussant; [80] Discussant****Lyneis, Margaret (UNLV and MNA)**

[104] *Pots on the Move: Western Colorado Plateaus Vessels in Southern Nevada*  
Transported pottery assemblages in Formative societies are thought to be constrained by characteristics of human transport such as size, utility as containers during transport, stackability, but socio-economic considerations in the production and recipient areas play a role, too. Two distinct plain wares, Moapa Gray Ware and Shivwits Plain, were transported westward in significant quantities to Virgin-region communities along the Muddy River in southern Nevada. Size estimates indicate that the transported assemblages differ from locally produced North Creek Gray Ware, but not in predicted ways.

**Lynott, Mark (National Park Service), John Weymouth (University of Nebraska, Lincoln), Rolfe Mandel (Kansas Geological Survey), Rinita Dalan (Minnesota State University, Moorhead) and Bruce Bevan (Geosight)**

[40] *Ohio Hopewell Earthen Wall Construction: A View from the Hopeton Earthworks*  
Hopeton Earthworks is one of the best preserved geometric enclosure sites remaining in the Scioto River Valley of southern Ohio. Although the walls are only about one-third their original height, four years of archaeological, geo-archaeological and geophysical research is generating valuable information about the methods and materials used to construct the massive earthen walls. Seven trenches across walls forming a large rectangle and a great circle document that specific soils were being quarried for wall construction. The sustained multi-disciplinary program of study is beginning to generate an estimate of the human effort that went into constructing this ancient monument.

**Lyon, Jason [36] see Reid, Kenneth****Lyon, Jerry (HRA) and Richard Ahlstrom (HRA)**

[94] *Archaeological Landscapes in the Las Vegas Valley*  
A survey of over 46,000 acres within the Las Vegas Valley provided an opportunity to integrate and synthesize site records from throughout the valley. Although most regional syntheses reference landscapes implicitly, an explicit landscape approach accommodates multiple research themes and lines of evidence and provides parameters for effective scales of observation, the grain and extent of culturally meaningful places. This poster examines distributions of over 1100 prehistoric sites from local landscape and broader valley-wide perspectives. We highlight distinct occupational profiles or place use-histories by examining distributions of activity-assemblage types and cultural-temporal affiliations.

**Lyon, Jerry [35] see Ahlstrom, Richard****Lyons, Patrick [97] see Hill, J. Brett**

**Lyons, Patrick D. (Center for Desert Archaeology), Elizabeth J. Miksa (Center for Desert Archaeology), Sergio F. Castro-Reino (Center for Desert Archaeology) and Carlos Lavayen (Center for Desert Archaeology)**

[23] *Using Petrography to Demonstrate the Link between Roosevelt Red Ware and Ancient Immigrants*

Archaeologists initially attributed the origin of the Salado phenomenon to the movement of groups from northern Arizona to central and southern Arizona and adjacent areas. Migration-based models of Classic period (A.D. 1200-1450) dynamics in the southern Southwest eventually fell out of favor. Compositional and stylistic analyses conducted during the 1990s, however, revived the idea that Roosevelt Red Ware (Salado polychrome pottery) was developed by immigrants. The results of recent petrographic work in the San Pedro Valley of southeastern Arizona strongly suggest that northern immigrants were responsible not only for the origin of Roosevelt Red ware but also its wide distribution.

Lytle, Farrel [106] *see Jensen, Eva*

**Mabry, Jonathan (Desert Archaeology, Inc.), Owen Davis (University of Arizona), Gary Huckleberry (Consultant), Fred Nials (Consultant) and Manuel Palacios-Fest (Terra Nostra, Inc.)**

[82] *A 3,000-Year-Old Irrigated Cornfield in Southern Arizona*

Recent excavations in a floodplain near Tucson, Arizona, revealed hundreds of unusual holes next to buried prehistoric canals. Multiple lines of evidence, including fossil pollen, macrobotanical remains, ostracode shells, and geomorphological evidence, indicate that these were planting holes in an irrigated maize field. Radiocarbon dating of charred maize places the age of this field near 1100 B.C., an antiquity that increases the significance of this unique discovery. This paper describes the archaeological traces of this irrigated field system, its environmental context, and its implications for understanding early agriculture in southwestern North America.

**MacEachern, Scott (Bowdoin College)**

[85] *Caste in West African Archaeology: Crucial or Irrelevant?*

The definition of West African caste systems has been debated for decades, but ethnographers agree on the crucial role that these specialists play in societies where they are found. Curiously, the implications of these debates for archaeological interpretations have not been widely recognised, particularly in the realm of day-to-day production of material culture. This may relate to the gendered characteristics of that production. Caste-conscious archaeological interpretations must also take into account the chronology of caste development. This paper will examine the role of caste in interpretations of West African material culture variability, with special reference to the Lake Chad Basin.

MacEachern, Scott (Bowdoin College) [64] *Discussant*

Macháček, Jirí [100] *see Dietz, Michael*

**Machovec-Smith, Kimberly (Museum of Fine Arts, Boston), Rene Munoz (University of Arizona), A.J. Vonarx (University of Arizona) and Margaret Kipling (Arizona State Museum)**

[91] *A Technical Study of Maya Mural Painting Techniques: An example from the Classic Maya Site of Tecolote, Guatemala*

The recent discovery of a still standing Late Classic Maya structure at the site of Tecolote, Guatemala, provided a unique opportunity for examining ancient Maya mural painting. Plaster fragments recovered from the interior of this building were characterized using SEM-EDX and polarized light microscopy. In addition, fragments of organic material were removed from bench plaster and dated using C-14. The results of these analyses are examined within the framework of the known plaster technologies of the region, and its implications for understanding regional political and historical trajectories are discussed.

Mack, Liza [71] *see Mack, Sean*

**Mack, Sean (Idaho State University), Liza Mack (Idaho State University) and Katherine Reedy-Maschner (Idaho State University)**

[71] *Two Centuries of Historic Landuse and Changing Sociopolitical Economies on Sanak Island*

The last two centuries on Sanak Island have seen the transition from an indigenous economy under local leadership, to a sea otter hunting economy under Russian rule, to a cod fishery under American rule, and finally a cattle and salmon based system that was very local in its

manifestations. Before abandonment in about 1980, Sanak Island had two thriving villages and at least two cod fishing stations which today are in part ghost towns and in part purely archaeological. Historically the region was the homeland of a number of prominent Aleut families centered in two towns while the shoreline and salmon streams were divided into family-based subsistence harvesting territories. This presentation will address and highlight some of the more important factors in the recent history of Sanak Island and discusses the inhabitant's identity with region.

**Mack, Steven (Southwest Archaeological Consultants, Inc.)**

[17] *Reassessing the Evidence for Low-Level Food Production on the Park Plateau, circa A.D. 400-1000*

Although domesticates, such as *Zea mays* and *Phaseolus vulgaris*, have been recovered from Developmental period (A.D. 400-1000) sites on the Park Plateau of northeastern New Mexico, archaeologists in the region are reluctant to attribute much significance to the role of food production in Developmental period subsistence economies. The reasons are varied, ranging from posited environmental constraints on cultivation to low frequencies of domesticates at archaeological sites. Another issue is the conceptual ambivalence of distinguishing between "agricultural" and "nonagricultural" societies in the archaeological record. I address these issues and present new archaeobotanical data from recently excavated sites on the Park Plateau.

**Mackay, Alex [136]** see *Tripcevich, Nicholas*

**MacWilliams, Arthur [141]** see *Hard, Robert*

**Madsen, David [88]** see *Schmitt, Dave*

**Madsen, David B. (Texas Archaeological Research Laboratory)**

[151] *The Paleoarchaic to Archaic Transition in the Great Basin*

In the Great Basin, a region of alternating mountains and valleys, the early Holocene transition from Paleoarchaic to Archaic foraging strategies was characterized primarily by the expansion of the number and kinds of habitats foraging groups exploited, the addition of seed processing to the resource base, and a change in mobility by those groups newly focused on the exploitation of upland ecosystems. The transition was also characterized by continuity in the way wetland communities were exploited, albeit in a reduced number of locations, and was thus essentially an additive process.

**Maggard, Gregory J. (University of Kentucky)**

[30] *Late Pleistocene Cultural Diversity: Colonization and Regionalization on the North Coast of Peru*

Results of recent survey and excavation of Early Preceramic (ca. 11,200-9,000 BP) Fishtail and Paján sites in the lower Jequetepeque Valley are discussed in terms of their significance for understanding early hunter-gatherer cultural diversity in South America and the process of increasing localization during the critical Late Pleistocene-Early Holocene transition. These data provide new insight into the initial settlement and subsequent economic and technological regionalization that occurred on the Peruvian North Coast following the end of glacial conditions. These data also provide an important comparative case for modeling the diversity of Late Pleistocene hunter-gatherer adaptations throughout the New World.

**Magnoni, Aline [12]** see *Hixson, David*

**Magunia, Cesar [99]** see *Klaus, Haagen*

**Malainey, Mary (Brandon University)**

[46] *Fatty Acid Analysis of Archaeological Residues: Procedures and Possibilities*

Archaeological food residues extracted from areas of fat accumulation in artifacts can be characterized on the basis of relative fatty acid composition. Compositions of ancient residues are compared to experimental residues subjected to periods of oven storage, which simulates the effects of oxidative decomposition over time. Levels of medium and very long chain saturated fatty acids, octadecanoic acid (C18:0) and octadecenoic acid (C18:1) isomers indicate the fat content of the material of origin and probable presence of animal or plant material. This technique performs well in blind tests of decomposed residues of previously unknown foods and identification criteria remain valid over time.

**Malcomson, Mark [46]** *see Rider, Micala*

**Maldonado, Blanca (Penn State University)**

[157] *Archaeometallurgy of Copper in Michoacan, Mexico*

The smelting of ores is almost invariably related to the formation of slags, because slags act as collectors for impurities. Slag analysis thus has the potential for revealing important information about metallurgical technology. Copper smelting slag recovered from the excavations at the archaeological site of Itziparatzico, Michoacan, Mexico, has been analyzed for microstructure and compositional properties. Preliminary results indicate a smelting technology that used sulfidic ores and highly efficient furnaces. While further archaeological investigations are required to precisely date these activities, this technological information is important for establishing the context and scale of production of metal goods in ancient Mesoamerica.

**Malinky, Barbara [138]** *see Fowler, Don*

**Malpass, Michael [49]** *see Rademaker, Kurt*

**Malusky, Jill [10]** *see Kennedy, William*

**Manahan, T. Kam [50]** *see Ardren, Traci*

**Mandel, Rolfe [40]** *see Lynott, Mark*

**Mandelko, Sierra (University of Montana)**

[103] *The Slate and Silicified Shale Industry Recovered at the Bridge River Site, British Columbia*

This study uses data drawn from the 2003-2004 field seasons to investigate a new stone tool industry at the Bridge River Site. This stone tool industry emphasizes groundstone slate and silicified shale scrapers and knives, in a wide range of forms as well as hafting techniques. Consequently, this points to a broader and more complex pattern of lithic technological organization within the middle Fraser canyon.

**Manguin, Pierre-Yves (EFEO) and Eric Bourdonneau (EFEO)**

[144] *New Data on Urban Development, Canals and Palaeoenvironment at the Site of Oc Eo (Mekong Delta, Vietnam)*

Archaeological excavation and environmental research were carried out in Oc Eo between 1997 and 2002, as part of a Franco-Vietnamese cooperation program. Stratigraphic data on the occupation of the urban site and on canal construction were gathered and a fine meshed chronological sequence developed for the whole length of the 1st millennium CE (i.e., for the Funan, pre-Angkorian and early Angkorian periods). Geomorphological and palynological analyses complement excavation data to provide a broader approach to the history of land use and space structuration in the Oc Eo area.

**Manne, Tiina (Department of Anthropology, University of Arizona)**

[152] *Ethnicity and the Ancient Maya: Conflict in Copan and Tikal*

Modern theories suggest that ethnicity is a constant reworking of cultural identity in response to present and future considerations. In contemporary society, ethnicity is a salient issue in - and often the justification for - conflicts throughout the world. Though the concepts of ethnicity are grounded in modern observations, current interpretations of archaeological and iconographic material of Copan and Tikal indicate that during periods of instability, elites manipulated ethnic awareness to maintain/rebuild society. Both the ruler, however, and the general population, played active roles in resolving their diverse and frequently conflicting interests. Symbols and myths appear to have been used, created and reworked in this process.

**Mannheim, Bruce (University of Michigan)**

[68] *Ethnic Identities in the Inka Empire: The View from Language*

An outstanding finding by linguistic anthropologists in the past decade is that human communities are normally multilingual and that the boundaries of languages and their internal texture and deployment within speech communities are historically variable and socially instituted. The consequences for Andean prehistory are substantial, and involve rethinking the relationship among language, "ethnicity," state, and territory. I discuss specifically Andean ways of fitting language onto differentiated social space in the Inka State and in the colonial Andes and reflect on the grounding of traditional archaeological models in unspoken assumptions of the naturalness of 19th-century ideas about language and nationality within Andean nationality projects.

**Manwaring, Jason [164]** *see Ball, Terry*

**Manzanilla, Linda (Instituto Nacional de Anthropologia e Historia)**

[132] *Methodology in the Archaeology of Mexico*

This paper will examine the complexity and depth of methods of analysis in the archaeological projects that are presently underway in Mexico. Emphasizing the strategies and methodologies that are presently deemed adequate in the archaeology of Mexico, trying to resolve challenges that we confront in diverse contexts. For example: What do we do when we confront habitation units? What do we do when in monumental contexts? What do we do when in open spaces? What types of samples are taken and why? All this starting from the benefits as much as from traditional analysis as, as from new technologies that have been recently incorporated into scientific development of our subject.

**Manzano, Bruce L. (Indiana University of Pennsylvania), Colleen A. Dugan (Indiana University of Pennsylvania), Cristie L. Weaver (Indiana University of Pennsylvania), Sara R. Fortnam (Indiana University of Pennsylvania) and Joseph A. Fedor (Indiana University of Pennsylvania)**

[33] *The First and (Hopefully) Last Roundup: Nuts and Bolts*

So, once you've found the funding to curate old collections, what next? Indiana University of Pennsylvania Archeological Services has a three-year partnership agreement with the Pennsylvania Department of Transportation to locate and prepare old collections for curation at the Pennsylvania State Museum. To date, we've collected 590 boxes of artifacts and records for 79 collections. The agreement provides our students with real world experience solving the problems collection managers typically encounter as they work with old collections. Our goal is that through this work experience, we will train students who are more conscientious about collection management in their future careers.

**Marciniak, Arkadiusz (University of Poznan, Poland)**

[133] *A Nature of Small Scale Changes in the Early Farming Communities: Example of Early and Middle Neolithic in Central Europe*

The objective of the paper is to discuss transformation and modification of everyday activities in Neolithic communities throughout Central Europe. In particular, it is aimed at addressing changes in practices of food acquisition and consumption and refuse disposal. The research procedure of interpretive social zooarchaeology is applied. It involves contextualized taphonomic analysis of animal bone assemblages along with evaluation of density driven attrition, food indices and interpretation of horizontal distribution of faunal remains in relation to other categories of archaeological data. Small scale changes in early and middle Neolithic communities from central Poland are discussed to address more general tendencies.

**Marcone, Giancarlo (University of Pittsburgh)**

[136] *Local Processes Beginning the Middle Horizon on the Peruvian Central Coast*

My paper discusses the beginning of the middle horizon on the central coast of Peru, particularly in the Lurin Valley and at Pachacamac. I will review a couple of new hypotheses about the growth of the state during the middle horizon in the north and south of Peru. These hypotheses suggest that the growth of the state during the middle horizon is not due to foreign influence as traditionally supposed, but rather that the development is a result of local processes. The interaction between different areas occurred later. The current evidence on the central coast shows a similar pattern for this area, coinciding with the new hypotheses, dating and data. These local processes were an important part of the central coast identity that the Spaniards encountered when they arrived.

**Marder, Ofer [55]** *see Shelach, Gideon*

**Margomenou, Despina (University of Michigan, Museum of Anthropology) and Stelios Andreou (University of Thessaloniki, Greece- Department of Archaeology)**

[100] *Prestige Consumption Practices and Centralized Storage: The Emergence of Socioeconomic Inequalities in Late Bronze Age Northern Greece*

Although little is known about the prehistory of Northern Greece, it has been proposed recently that during the late 2nd millennium BC the adoption and consumption of luxurious pottery from Southern Greece was related to the emergence of 'small-scale' hierarchies in the area. The new practices may have served to mobilize local surplus production which was stored in regional centers creating a 'Northern Greek type' of hierarchically organized economy. The paper

investigates this scenario based on the evidence for centralized storage, Mycenaean pottery, and prestige consumption practices from Thessaloniki Toumba, the largest excavated site in the region.

**Markert, Joanne [118]** *see Kramer, Stephenie*

**Markle, Dirk (University of Montana)**

[103] *Bridge River: a Glimpse of Stratigraphic Complexity of a Housepit Village (1700 BP- 200 BP)*

The Bridge River Site in south-central British Columbia is at the forefront of fieldwork presently being conducted on the interior Canadian Plateau. Stratigraphic analysis at the Bridge River Site is shedding new light on the understanding of housepit depositional patterns. Sixty of the site's eighty housepits were sampled in the past two field seasons. This paper will address processes of housepit construction, abandonment and reoccupation as viewed from the standpoint of site stratigraphy and dating. Implications for understanding village evolution are considered.

**Markussen, Christine (University of Arkansas)**

[93] *Geophysical Surveys at Roman Halmyris, Romania*

Halmyris is a 1st through 6th century A.C.E. Roman fort located at what was once the mouth of the Danube River, in the present day Dobrudja region of Romania. The imagery acquired through magnetic gradiometry in 2003 revealed anomalies within and outside of the fort's walls indicating the site's relative layout. Additional electrical resistivity surveys in 2004 identified walls where the magnetic data were unclear. The two geophysical data sets are arithmetically combined to better represent previously obscured data and provide new interpretations. The combined geophysical and digital image processing techniques offer potentially valuable information for site excavation planning.

**Markussen, Christine J. [27]** *see Kvamme, Jo Ann Christein*

**Marshall, Anne (ASU/University of Idaho)**

[69] *Deconstructing Pueblo del Arroyo, Reconstructing Chaco*

Despite more than a century of scholarship, we still do not fully understand the enigmatic society that built the monumental masonry buildings in Chaco Canyon, New Mexico, AD 850-1150. One of the big questions about the great houses is, "How many people lived there?" Many scholars have addressed this question using a variety of methods beginning with early studies by Fisher (1934) and Pierson (1949) who both estimated a population of 1200 for the great house Pueblo Bonito. More recently, Bernardini (1999) analyzed residential suites of Pueblo Bonito and arrived at a much lower estimate of 72 individuals in 12 households. This study applies Bernardini's method to an adjacent great house, Pueblo del Arroyo. It appears that residential quarters of Pueblo del Arroyo were only a small portion of the overall construction and that the maximum population never exceeded 60 individuals or 10 households. Given recent higher labor estimates, it is unlikely that the inhabitants of Pueblo del Arroyo were numerous enough to provide the labor necessary to construct the great house.

**Martin, Andrew V. (Cultural Resource Analysts, Inc.) and Jessica L. Allgood (Cultural Resource Analysts, Inc.)**

[2] *Bison in the Bluegrass: Context and Implications of a Late Holocene Bison (Bison bison) Find from Kentucky*

During an archaeological survey in spring of 2003, bison (*Bison bison*) remains were found buried along a small upland stream in Scott County, Kentucky. In situ faunal specimens representing a single bison, were recovered from approximately 1.3 meters below the ground surface. Geological and paleoecological data suggest that the bison was buried within late Holocene alluvium, and a conventional radiocarbon age of 240-30 BP (Beta-186169) was acquired from the bone. Additionally, bone collagen was extracted, suggesting a diet for this individual. This find is consistent with historic accounts of bison in the area, but it represents one of the few documented bison finds in the Ohio Valley. This poster explores the significance of this find and provides a context for other bison sites in the region.

**Martin, Cheryl (University of Nevada, Las Vegas)**

[75] *Results of Chemical Analysis on Obsidian Samples from Two Virgin Anasazi Sites Near Mt. Trumbull, Arizona Strip, Northwestern Arizona*

The Virgin Anasazi lived in the Mt. Trumbull area from around AD 300 or earlier to AD 1230. The results of LA-ICP-MS analysis on obsidian flakes collected from sites of different time periods will

be presented, with a discussion on what may be learned about changes in directions of mobility or exchange through time. If the exact obsidian sources are identified, the discussion will include a comparison of the movement of obsidian with the movement of olivine-tempered pottery, which is known to come from the Mt. Trumbull region and has been found in southern Utah and southeastern Nevada.

**Martin, Fabiana (CEQUA-UMAG), Ramiro Barberena (Dipa-Conicet) and Luis A. Borrero (Dipa-Conicet)**

[156] *Faunal Analyses, Human Subsistence and Biogeography in the Pali Aike Lava Field, Southern Patagonia: New Perspectives from Cóndor 1 Site*  
The faunistic record from the Pali Aike area -Southern Patagonia- presents taphonomic features of interest for both, formational and biogeographic discussions. We present the preliminary analysis of the assemblage from Cóndor 1 site, which, on local standards, is striking in terms of the redundancy of human occupation. We evaluate the intensity of bone deposition and fragmentation, altogether with a discussion of the implicated agents. Finally, an exploratory comparative analysis with sites from different geographical locations is presented as a means of proposing biogeographic patterns of human mobility and installation, which can be further tested on the basis of other evidences.

**Martin, Juan Guillermo (Universidad de Huelva) and Luis Alberto Sanchez (Smithsonian Tropical Research Institute)**

[123] *El istmo mediterráneo: trueque, simbolismo y afiliación social en la Bahía de Panamá durante el periodo 500-1000 d.C. (The Mediterranean Isthmus: Exchange, Symbolism and Social Affiliation at Panama Bay during the 500-1000 AC Period)*

La particular geografía costera del istmo panameño influyó históricamente en las relaciones marítimas internas o externas de las poblaciones precolombinas. En Cerro Juan Díaz se identificó el estilo "Cubitá" que también se encuentran a más distancia, en el Archipiélago de las Perlas la cual, en algunos casos, está asociada a grandes concheros y en otros asentamientos de la Bahía de Panamá. La distribución de este estilo policromo y la expansión de otros elementos de la tradición del "Gran Coclé" puede estar relacionada con la adquisición y el intercambio de conchas marinas propias de arrecifes coralinos y aguas no estuarinas. (The unusual coastal geography of the Panamanian isthmus was important for the internal and external maritime relationships of precolumbian populations. At Cerro Juan Díaz the "Cubitá" style was identified, which is also present at the Archipiélago de las Perlas, sometimes associated with large shell middens, as well as at other sites at Panama Bay. The distribution of this polychrome style and the expansion of other elements of the "Gran Coclé" tradition may be related to the acquisition and exchange of marine shells from coral reefs and non estuarine waters.)

**Martin, Laura [22] see Memory, Melissa**

**Martinez, Gustavo (CONICET-UNCPBA), María Gutierrez (CONICET/UNCPBA) and Gabriela Armentano (CONICET/UNCPBA)**

[30] *The Archaeology of Paso Otero 5, a Late Pleistocene-early Holocene Site from Pampean Region, Argentina*

The archaeological knowledge of the Pleistocene-early Holocene human occupations in the Pampean region has improved through the finding of new archaeological sites dated between 10,000 and 11,200 BP. Among these sites, Paso Otero 5 is characterized by the presence of extinct megamammals and modern species in association with "fish tail" projectile points chronologically located between ca. 10,400 and 10,200 years BP. The aim of this paper is twofold: 1) to address the chronology, faunal remains and lithic technology trends of the site, and 2) to discuss the late Pleistocene-early Holocene settlement system in the Pampean region.

**Martínez, Gustavo (CONICET-INCUIPA Facultad de Ciencias Sociales (UNCPBA), Argentina)**

[140] *Surface Bone Modification Caused by Nukak Prey Acquisition*

The Nukak (Guaviare Department, Colombian Amazon) provides a good opportunity for discussing aspects related to the use of faunal resources by tropical forest hunter-gatherers. The focus of this paper entails the study of a set of material correlates produced on the bone surfaces derived from Nukak subsistence activities (prey acquisition, processing, consuming and discarding of carcasses). The information related to species and skeletal parts representation as well as human and non-human induced modification on bone will be analyzed and discussed.



**Martínez, Natalia (Universidad de las Américas, Puebla) and Guadalupe Sánchez (University of Arizona)**

[145] *Ancient Plant-human Interaction in La Playa, Sonora*

This paleoethnobotany study provides information on the interaction between human beings and plants during the Early Agriculture Period of La Playa site (Sonora, Mexico), focusing in the topics of subsistence, utilization of fuel, and disturbances of the landscape. The analysis of different types of archaeological features, the integration of the botanical data with the archaeological contexts where they were found, and the corroboration of the uses of plants in the ethnographic literature of the area, provide reliable cultural interpretations.

**Martínez Muriel, Alejandro (Instituto Nacional de Antropología e Historia)**

[132] *The Archaeology of Mexico Under State Control*

In Mexico, archaeology had its origin in a strategic proposal of the Mexican State, where the first works in Teotihuacan, Mitla, and Xochicalco, towards the end of the XIX century, defined the national character of archaeological monuments. The creation of the Instituto Nacional de Antropología e Historia in 1939 reaffirmed the public interest of archaeological duty. However, even in the context that the practice of archaeology can be interpreted as a vertical action, in reality the execution of archaeological projects are often restricted due to aged problematic in the life of the country, which should be understood before generating a problem. Among those approached are: land tenure, land use, traditions and customs, and political problems. Emphasis is given to the need to establish ties through agreements, and informal relations with the different levels of government, as well as in a daily way with communities, authorities, and social groups that exercise some level of interest concerning archaeological heritage.

**Maschner, Herbert (Idaho State University), Nancy Huntly (Idaho State University), James Jordan (Antioch New England Graduate School), Bruce Finney (University of Alaska - Fairbanks) and Katherine Reedy-Maschner (Idaho State University)**

[71] *The Sanak Islands Biocomplexity Project*

The Sanak Islands Biocomplexity Project grew out the ten years of investigations on the western Alaska Peninsula and is founded in two related research questions. First, what have been the roles of prehistoric, historic, and modern Aleut in the structure and functioning of the north Pacific ecosystem and is it possible for that role to continue to viably sustain the communities that live in this ecosystem today? Second, how have major changes in the environment, such as sea level, climate, tsunami, and volcanic eruptions, conditioned human social behavior in the context of humanity's role as a key condition in the engineering of the North Pacific ecosystem?

**Maschner, Herbert** [71] *see Falkner, Michael; see Jordan, James; see Williamson, Andrew*

**Mason, Owen (Georch Alaska)**

[121] *The Multiplication of Forms: Bering Strait Harpoon Heads as a Demic and Microevolutionary Proxy*

Sedentism, higher populations, elaborate art and cemeteries appeared about Bering Strait 500-200 BC, based on a whaling-derived surplus. Scalar stress produced conflict over resource hot spots, AD 400-900. Demic boundaries are definable from motifs on sealing and whaling harpoon heads. Demographic profiles from burials (n=1200) reflect warfare (skewed sex ratios) with dated graves peaking at AD 1000. Most cemeteries were dominated over centuries by a single set of motifs, with intrusions that indicate shifts in ethnicity, ecological or climatic change. Shifts in harpoon heads correlate with ice hunting strategies and population expansion-providing the matrix of microevolution.

**Masucci, Maria (Drew University)**

[136] *The Meaning of Change: The Guangala to Manteno Transition in Coastal Ecuador*

Ecuador poses challenges to research which moves beyond questions of cultural history. Many regions still lack descriptive data on prehispanic cultural traditions. Research projects in the coastal plain region have allowed archaeologists to address questions of change and process. This paper examines the Guangala Phase and the relation of this cultural style to the subsequent Manteno style. The model proposed derives from ceramic stylistic and technological studies, raw material sourcing and other archaeological data. The question addressed is the relationship between the Guangala style present until 500-600/800 AD and the Manteno groups who met the Spanish in the 16th century.

**Matarrese, Alejandra** [27] *see Backhouse, Paul*

**Matero, Frank (University of Pennsylvania)**[122] *Architectural Conservation and Developments Related to the Antiquities Act*

At the end of the 19th century in the American Southwest, archeologists and architects began treating ancient and historic structures for conservation purposes. Although little recorded, examination of the physical remains of these conservation interventions can be used to understand the practices and materials used. European approaches and theories of conservation and interpretation also seem to have been familiar to at least some of the Americanists of that era.

**Mathews, Jennifer (Trinity University) and Lilia Lizama-Rogers (University of Yucatan)**[142] *All Aboard the Chiclet Express: The History of a Chewing Gum Railroad in Quintana Roo, Yucatan*

This paper will present the cumulative research of a historic narrow-gauge chicle (chewing gum) railroad by the Yalahau Project. This 40 km long feature, located just south of Cancun, is currently under threat due to tourism and housing developments. We will present the colorful history of this railway that brought chicle to the U.S. from 1900-1970 with funding from London, workers from Cuba and Korea and in spite of rebel Maya uprisings. We will also discuss our use of mapping, survey, GPS, GIS, archival research and ethnographic interviews with chicleros, including stories about daily life, working conditions, and family photos.

**Mathews, Peter** [54] *see Reese-Taylor, Kathryn*

**Mathieu, James (University of Pennsylvania Museum) and Melissa Vogel (UCLA)**[86] *Approaching Gender in Pre-Conquest Peru*

Archaeologists working in Andean South America are fortunate to have a rich ethnohistoric record from the early colonial era and more recent ethnographic data available for their analogical use. But the degree to which these resources are applicable to pre-Conquest cultures has been questioned. In terms of gender analysis, it can be difficult to move beyond simple studies of task differentiation in these pre-literate societies, except in the few cases where the iconographic record is particularly descriptive. This paper examines the extent to which colonialist colorations of gender roles affect archaeological interpretation of gender concepts 1000 years before the conquest.

**Matlack, Alex** [129] *see Britain, Lara; see Laughner, Rebecca*

**Matsunaga, John (University of California, Berkeley)**[8] *Theorizing Place in Archaeology: An Introduction*

While the relationship between social phenomena and their spatial dimensions has long been a primary focus of archaeological research, archaeologists have only recently begun to explicitly discuss the concept of place. Despite these discussions and the increasing utilization of the term "place" in archaeology, adequate definitions and theorizations are lacking. This paper presents an overview of the concept of place and discusses the main theoretical and methodological issues involved. Emphasis is given to practice theory and phenomenological approaches, particularly in regards to the study of identity, memory and experience. Discussion of methodology focuses on the use of computer technology.

**Matsunaga, John** [31] *see Tripkovic, Boban*

**Matthew, Landt (Washington State University), Andrew Duff (Washington State University) and Fumiyasu Arakawa (Washington State University)**[69] *Results from the Cox Ranch Pueblo Community Research Project*

This poster summarizes the findings of the Cox Ranch Community Research Project, an ongoing project designed to explore a Chaco-era community (A.D. 1050-1130) in west-central New Mexico. Research in 2004 focused on attributes of great house construction, the use of public and private spaces, as well as an understanding of settlement pattern in the local community. By comparing the location and presumed function of great house and kiva features at Cox Ranch to similar features elsewhere, we are able to evaluate the nature of Chacoan influence on the development of this southern great house community.

**Matthews, Christopher (Hofstra University) and Kurt Jordan (Cornell University)**[153] *Historicizing the Sacred and the Secular: Institutionalization of an Anachronism*

In archaeology, 'sacred' frequently is used as a general gloss for the inexplicable. We argue conversely that the 'sacred' must be historicized as a marker of modern rationality and linked to

19th-century definitions of secularism. This challenges both archaeological interpretation and practice. We illustrate our point with discussions of anthropological interpretations of the meaning of shell bead wampum and the creation of American heritage sites in Northeastern North America. In both instances the sacred serves to mediate the presence of the past, and does so in ways that illustrate how the empowered and less powerful relate to the dominant culture.

**Mattox, Wesley**

[87] *Ritual Foci across the Urban Landscape of Tiwanaku*

Access to and from major ritual spaces is considered a primary indicator of social and polity hierarchy. Excavations of georadar anomalies detected in the monumental core uncovered a pattern of repeating ritual structures that may have formed a secondary or complementary level of ritual foci to the major visible monuments. This research proposes that these U-shaped structures served as the ritual focus for specific areas of the site while the major monuments served as the local for state-sponsored activities. The implication is that a primary cohesive force for resident population may have been association these group-based ritual activities.

**Maxwell, David (Statistical Research, Inc.)**

[3] *Cheers for Sixty Years!: North American Beer Cans Through Time*

Canned beer has been available commercially in North America since 1935. During this time, a variety of changes in can construction and label design have appeared; these changes are very useful for determining can ages. Previously, I have documented some of the major changes used for determining age. With this poster, I add several refinements to my previous work, and expand the study to include Canada as well as the United States.

**Mayo, Julia (Universidad Complutense de Madrid)**

[123] *Desarrollo tecnológico y especialización artesanal: el caso de los adornos de conchas marinas en Cerro Juan Díaz y Gran Coclé (Technology and Specialized Workmanship: The Case of Ornaments made of Marine Shells at Cerro Juan Díaz and Gran Coclé)*

La existencia de talleres, herramientas especializadas son evidencias arqueológicas de especialización. En Cerro Juan Díaz se ha encontrado un taller de conchas marinas con restos de talla, preformas y cuentas de *Strombus galeatus*, *Spondylus* spp., *Anadara grandis* y *Pinctada mazatlánica*, y útiles de piedra, hueso y concha. Con una metodología original empleada, evaluamos el grado de desarrollo tecnológico de esta industria a finales del Período Cerámico Medio. En Gran Coclé existía especialización artesanal de la industria de conchas marinas, valoramos para ello el número de total de cuentas, sus estadios de elaboración, y la selección de la materia prima. (The existence of workshops and specialized tools constitute archaeological evidence for specialization. A workshop of marine shells, including preforms, debitage, and beads made of *Strombus galeatus*, *Spondylus* spp., *Anadara grandis* and *Pinctada mazatlánica*, together with stone, bone and shell tools was found at Cerro Juan Díaz. The degree of technological specialization at the end of the Middle Ceramic Period was evaluated using a specially designed methodology. Specialized workmanship for the production of an industry of marine shells existed at Gran Coclé. This inference derives from the number of beads, the different stages for their elaboration, and the selection of raw material.)

**Mayro, Linda (Pima County Cultural Resources Office)**

[154] *Public Archaeology, Knowing Who Your Friends Are and Bonding with the Past: Gwinn Vivian as Mentor*

As public archaeology and cultural resources management began to emerge as an applied field of research and historic preservation, those of us who worked for the Arizona State Museum in the 1970s were privileged to work with Gwinn Vivian as colleague and mentor. Gwinn set the bar high, suggested we think creatively and respond quickly, watch our budgets and our backs, find solutions, and above all remember our responsibility to the greater public whose heritage and culture, as well as their dollars, should be preserved if at all possible. These formative principles have fully shaped my career. Any successes that I have experienced, I attribute to the learning journey begun 30 years ago with Gwinn Vivian, and to his lessons still current and always in mind.

**Mazeau, Daniel [116] see Hutson, Scott**

**Mazow, Laura (University of Arizona)**

[83] *Migration and Feasting Converge: The Fate of the Humble Cooking Pot*

Recent archaeological reconstructions employ migration and feasting studies as tools for

understanding social change. These methods depend on cooking vessels as material correlates of cultural behaviors—either as signs of enculturative traditions, or as evidence of supra-household consumption. This dynamic has caused a methodological conflict whereby cooking pots are seen as unconscious products of habitus and engaged in activities involving conscious expressions of status and identity. My paper examines the role of a foreign cooking vessel at the Iron Age site of Tel Migne-Ekron, where it may be implicated in activities signifying both foreigners and feasting rituals.

**McAllister, Martin (Archaeological Resource)**

[138] *The Society for American Archaeology Professional Standards for the Determination of Archaeological Value: Solving the Archaeological Value Determination Problem*

In actual Archaeological Resources Protection Act (ARPA) cases and in a five-day Archaeological Damage Assessment class presented by the firm of Archaeological Resource Investigations, there has been significant variation in archaeological value figures prepared by archaeologists for the same archaeological damage. Apparently, the archaeological value determination procedures established by the ARPA Uniform Regulations of 1984 have not provided adequate guidance to produce reasonably consistent determinations of this value. To attempt to rectify this situation, Society for American Archaeology (SAA) Professional Standards for the Determination of Archaeological Value were adopted in 2003. This paper discusses the SAA standards and their development.

**McAnany, Patricia (Boston University) [99]** *Discussant*; [72] *see Harrison-Buck, Eleanor*

**McBride, Kevin [39]** *see Handsman, Russell*

**McBrinn, Maxine (The Field Museum) and Ed Jolie (University of New Mexico)**

[111] *Perishables Research Across the Prehistoric Great Basin and Southwest*

Fiber-based technologies comprise a significant fraction of the material culture produced by the indigenous inhabitants of the Great Basin and the Southwest. During the development of archaeology in western North America, the products of these fiber-based industries were scrutinized by a handful of researchers for what they revealed about local culture histories and for what they could contribute to the definition of archaeological cultures. Our paper reviews this early work on perishable artifacts and explores the insight and knowledge this research lent to the development of western North American archaeology and to the maturation of archaeological perishables studies.

**McCafferty, Geoffrey (University of Calgary)**

[50] *Recent Investigations at Santa Isabel, Nicaragua*

Research results are presented from the 2004 field season at Santa Isabel, an Ometepe phase (1300-1550 CE) site on the shore of Lake Nicaragua. Investigations evaluate the ethnic identity of the Nicarao, historically associated with the Nahua of central Mexico. A rich material record from domestic contexts does not support Nahua ethnicity, but rather suggests a more indigenous affiliation.

**McCall, Grant (University of Iowa)**

[77] *Aggregation and the Relief of Social Tensions at Peet Alberts Kopjes, Northwestern Namibia*

This paper examines the Peet Alberts Kopjes rock art site in Northwestern Namibia. This paper analyzes the spatial distribution of various motifs across the site. Using multivariate statistics, the paper finds a strong association between giraffe, zebra, leopard, and 'honeycomb' geometric representations. In this paper, I make the case that the rock art resulted from social behavior designed to relieve tensions caused by crowding and scarcity during dry season aggregation. Specifically, the rock art is consistent with Lewis-Williams (1988) definition of neuropsychological imagery and I argue is evidence for trance dancing.

**McCleary, Timothy (Little Big Horn College)**

[79] *Ghosts of the Land: Interpretive Approaches to Historic Crow Indian Rock Art*

The Crow people call petroglyph and pictograph sites baáhpawaalaatuaa/rock walls with writing. Panels depicting realistic warriors engaged in combat are commonly identify by Crow people as having been created by their ancestors, but also, often simultaneously, as having been created by ghosts. This paper will examine ways in which to understand historic Crow petroglyphs through contemporary interpretations of portable biographic art and the cultural category of ghost writings.

**McClelland, John (Arizona State Museum)**

[94] *Detecting Subpopulations at Grasshopper Pueblo Through the Use of Dental Morphology*  
Work by previous researchers has pointed to the presence of population subsets at the 14th century A.D. site of Grasshopper Pueblo in Arizona. In this study, analysis of dental morphology was used to investigate intrasite biodistance. A full suite of standard morphological observations as well as some experimental measurements were recorded for each specimen in the skeletal collection. A hierarchical cluster analysis revealed that the spatial distribution of adult dental groups formed a similar pattern to that indicated by previous studies. This result tends to confirm the efficacy of dental morphology as a tool for intrasite biodistance studies.

**McConaughy, Mark (Bureau for Historic Preservation, Pennsylvania Historical and Museum Commission)**

[124] *Hunting Prehistoric Crops in Western Pennsylvania*

The earliest domesticated crop from Western Pennsylvania was Pepo squash. It was present by the Late Archaic Period. Tobacco and Eastern Agricultural Complex crops were slowly added during the Woodland Period as they diffused into the region from the Midwest. Maize and beans only became important crops during the Late Prehistoric Period after A.D. 900. This paper examines the evidence for domesticated plants from Western Pennsylvania.

**McCorriston, Joy (The Ohio State University)**

[92] *Seasonal Rainfall and the Spread of Early Crop Agriculture in the Near East*

Frank Hole has argued that the origins of plant agriculture and of urban societies in Mesopotamia were significantly catalyzed by early and middle Holocene changes in climate. Seasonality of rainfall proves to be an extremely significant component also of the spread of crop agriculture from the Mediterranean Levant. This paper explores the likely growth habits of early cereals, using archaeological and botanical evidence and suggests that rainfall parameters acted as a barrier to early crop agriculture's spread. The geographical spread of agriculture is as much a story of technological advances as the adaptation of domesticates to new environments.

**McFarlane, William (SUNY Buffalo), Charles Webber (Gila River Project) and Leigh Anne Ellison (Northern Arizona University)**

[129] *Socio-political Implications of an Isolated Blade Workshop: Commodities, Control, and Specialization*

Craft specialization has long been considered a factor in the rise of socio-political complexity in Mesoamerica. Though this process is understood, new evidence continues to confound old explanations and warrants more refined models. Settlement pattern studies focused on the lower Cacaupala valley, Northwestern Honduras, have identified a blade production workshop near the monumental center of El Coyote. Excavations at this workshop collected 81 exhausted prismatic cores and core fragments along with blade production debris. The presence of craft-specialists outside the primate center raises key questions about the role of economic integration and socio-political centralization.

**McGovern, Thomas [119] see Perdikaris, Sophia****McGuire, Randall (Binghamton University)**

[154] *Gwinn Vivian and the Sonoran Desert*

R. Gwinn Vivian is best known for his research at Chaco Canyon in northwest New Mexico. As the first director of the Arizona Highway Salvage Program at the Arizona State Museum, however, Gwinn Vivian also did research in the Sonoran desert. This was a critical time in the development of archaeology of the area. CRM dramatically increased the number of projects in the desert. Contract funding also led to research in parts of the desert that had received little previous attention. Here his influence was felt primarily through the archaeologists who he mentored and guided in their formation as professionals.

**McGuire, Randall [153] see Bernbeck, Reinhard**

**McKee, Brian (University of Arizona)**

[91] *Structure Function at the Cerén Site: Implications for Maya Population Studies*

Population reconstruction at Maya sites is usually based on structure platform counts, with corrections for nonplatform and hidden structures, nonresidential structures, contemporaneity, and disuse. The Cerén site in El Salvador was catastrophically buried by a volcanic eruption around A.D. 650, leading to outstanding architectural and artifactual preservation. This allows more reliable identification of structure form and function than is usually possible in Mesoamerica.

Although the sample is small, Cerén has a higher proportion of nonresidential structures than is usually assumed in Maya population studies, and the nature of construction also has implications for estimates of nonplatform and hidden structures.

**McKenna, Peter [154]** *see Toll, H. Wolcott*

**McKenzie, Dustin (University of California, Santa Barbara)**

[19] *Socioeconomic Implications of Fishhook Technology on the California Islands*

Analyses of prehistoric fishing implements from the California Islands have traditionally focused on various technical attributes and the creation of typologies. These studies have identified variations among fishhook assemblages with morphological differences being interpreted as cultural markers between Northern and Southern Island populations. However, that the increasing dietary importance of fish was an inter-island phenomenon suggests that subtle geographic variations among fishhooks had little effect on fishery exploitation. I argue that the development of extractive technologies followed similar historical trajectories on different islands and that the increased productivity of new technologies had significant socioeconomic ramifications on a regional scale.

**McKeown, C. Timothy (National Park Service) and Sherry Hutt (National Park Service)**

[165] *The History, Present, and Future of the Native American Graves Protection and Repatriation Act*

The Native American Graves Protection and Repatriation Act was passed in 1990 to address the rights of lineal descendants, Indian tribes, and Native Hawaiian organizations to certain Native American human remains, funerary objects, sacred objects and objects of cultural patrimony. This paper reviews the legislative and administrative history of the Act to help understand how repatriation is likely to evolve in the future.

**McKillop, Heather (Louisiana State University), Bretton Somers (Louisiana State University), Mark Robinson (Essex University, U.K.), Kevin Pemberton (Southern Methodist University) and John Young (Punta Gorda, Belize)**

[108] *Ancient Maya Wooden Architecture Preserved in a Peat Bog in Paynes Creek National Park, Belize*

Wooden buildings were preserved at 23 underwater Maya sites discovered in 2004 in a peat bog below the seafloor in Paynes Creek National Park, on the south coast of Belize. Here we describe their discovery, show methods of reconnaissance and instrument mapping, and evaluate the significance of the first known ancient Maya wooden buildings. Dated by ceramics and radiocarbon dates to the Late Classic period (A.D. 600-900), they are inundated terrestrial sites submerged by sea-level rise.

**McKillop, Heather [108]** *see Pemberton, Kevin; [134]* *see Somers, Bretton*

**McKnight, Matthew (Penn State University, Department of Anthropology)**

[5] *Early and Middle Woodland Copper Procurement and Exchange*

This project evaluates copper exchange in Early and Middle Woodland times. Various models have been proposed for the acquisition of copper (through direct procurement or trade), and the manufacture and distribution of finished objects. These models can be tested by 1) quantifying the number and location of copper-bearing sites, copper objects, and various artifact types, 2) determining sources of copper through trace-element work, and 3) using this information to explore models of production and exchange. This poster reports on the first of these three goals by focusing on the distribution of some 29,000 artifacts (mostly beads) and 400 sites.

**McLaughlin, Robert**

[165] *The Archaeology of the Past in the Present Reflections on NAGPRA and the Antiquities Act*

This paper reflects on fifteen years of NAGPRA implementation, framed by the larger context of 99 years since passage of the 1906 Antiquities Act. That Act, informed by archaeological preservationist laws dating from the 1880's, established a basic framework for American archaeology. NAGPRA and related legislation revise this framework to be more collaborative between Native American tribes and archaeologists, and to value a broader range of connections between material culture and meaning. NAGPRA represents a renegotiation of interpretive authority, legal rights, and forms of knowledge, and a prevailing of the anthropological concept of cultural relativity within the practice of archaeology.

**McLearen, Douglas (PA Bureau for Historic Preservation) and Kurt W. Carr (PA Bureau for Historic Preservation)**[109] *Recent Testing at the Kings Jasper Quarry, Lehigh County, Pennsylvania*

The King's Quarry Site (36LH2), located in the Reading Prong region of eastern Pennsylvania, is one of six remaining jasper quarries. Our investigations included controlled surface collections and developing profiles of prehistorically excavated quarry pits in what appeared to be the most intensively mined area of the site. Several charcoal samples were collected from the profile which documented a prehistoric excavation over eight meters deep. A Paleoindian fluted preform along with other typical Paleoindian tools were recovered from the perimeter of the quarry pit. This talk will focus on describing the profile and the activities of the prehistoric miners.

**McLeester, Madeleine [93]** *see Popova, Laura*

**McManamon, Francis (National Park Service)**[122] *Commodity or Culture? The Department of the Interior and Archeology on Public Lands in the Late 19th Century*

In the late 19th century the Department of Interiors interest and involvement in archeology was spurred by public and Congressional pressure. Interest in preserving and protecting archeological resources was linked to the conservation of potential park areas and natural resources. Interior officials participated actively in the late phase of drafting of the legislation that became the Antiquities Act. The act established the crucial policy that archeological resources are of primary importance for their commemorative, educational, and scientific value, rather than as commercial commodities.

**McMillan, Alan [60]** *see Yang, Dongya*

**McNeil, Lynda (University of Colorado, Boulder)**[137] *Spring Revival Rites: Ecological and Symbolic Adaptive Strategies of Basin-Plateau Colonizers*

This paper focuses on Numic (Basin-Plateau) spring revival rites and rock art at three sites in eastern Utah and western Colorado that correspond with probable aggregation sites for the spring Bear Dance. Numic colonizers adopted spring revival rites through processes of natural selection in response to reproductive and somatic demands: alliance-forming, exogamous mate-finding to minimize the risks of inbreeding or male out-ranging due to low population densities, and food-sharing during late winter resource scarcity. The success of Numic social networks depended upon a complex of symbolic strategies, including ritual and rock art, that could be preserved and transmitted intergenerationally.

**McPherron, Shannon (Max Planck Institute) [62]** *see Blackwell, B.A.B;* [78] *Discussant;* [93] *see Sandgathe, Dennis*

**McVickar, Janet L. (Western Cultural Resource Mgt., Inc.)**[141] *Puzzle on the Periphery: Who Lived on the Harquahala Plain?*

Archaeological investigations were conducted along a recent 920-mile fiber optics line project that exposed a long, narrow slice of land between Lamesa, Texas and Blythe, California. In Arizona, few sites were identified west of the greater Phoenix area, and only one was encountered in western Maricopa County. This site was identified as Patayan, but because of its proximity to the Hohokam cultural sphere, the question arose--was it Patayan or Hohokam? Radiocarbon dates, ceramics, geographic location, and site type were examined for clues of ethnicity and age. I address these lines of evidence and draw conclusions accordingly.

**Meacham, James [125]** *see Jacobson, Esther*

**Meacham, Samuel [112]** *see Rissolo, Dominique*

**Meanwell, Jennifer (MIT)**[42] *Chemical versus Petrographic Analysis of Pottery from the Balsas Region, Guerrero, Mexico*

Both chemical and petrographic studies of pottery have long histories in archaeology as analytical techniques, and have made vital contributions to the interpretation of pottery provenience in the Maya area, the US Southwest, and other regions. However, studies comparing these two techniques using the same data set are rare. This paper presents the ICP-MS and petrographic analyses of the same samples of clays and pottery from La Queseria, Guerrero, Mexico, a large Balsas depression site. These techniques are compared to determine their utility in regional archaeological provenience studies.

**Medina Martin, Cecilia (UADY) and Mirna Sanchez Vargas (UADY)**

[72] *The Use of Fire during Posthumous Body Treatments among the Classic Maya. A View from the Northern Peten Area*

This investigation explores the use of fire in different posthumous body treatments during the Classic period. To this effect vestiges of thermal exposure in human skeletal remains from Calakmul and Becan, Campeche, are analyzed macroscopically and histologically. Patterns of heat damage in the bony material are put into context with other traces of ritual body processing that have already been documented, and are jointly interpreted in terms of potential post-sacrificial rituals in ancient Maya society.

**Meegan, Cathryn (Arizona State University)**

[69] *Interactions within a Complex Socio-ecological System: A Case Study of Hohokam Fuel and Agave Use at Grewe Village*

This poster presents a case study for analyzing plant use as an ecological variable that is intimately embedded in all components of a socio-ecological system. As an important part of the Hohokam subsistence and social system, the way people interacted with plants, including changes in availability, preferences, and processing methods, should reflect social and environmental changes within the overall cultural system. Using archaeobotanical data from Grewe Village, I focus on changes in the choice and use of fuel types and agave parts over the Hohokam Preclassic to Classic transition (c. 1000-1250 A.D.) to illustrate these interactions.

**Melis, Ted [141]** *see Fairley, Helen*

**Mellars, Paul (University of Cambridge)**

[44] *The Homo sapiens Colonization of Europe: Geographical, Ecological, and Archaeological Perspectives*

This paper attempts to reconstruct the patterns of colonization and dispersal of anatomically modern populations across Europe between ca. 45,000 and 35,000 BP, with particular reference to the Mediterranean region. Evidence at present suggests a dual pattern of Europe, via the Danube Valley and the Mediterranean coast respectively, marked by significantly different technological patterns and probably different economic adaptations. The main emphasis will be placed on a comparison of the chronological patterns of these two dispersals, and on their possible origins in the east Mediterranean region. The relevant DNA and skeletal evidence will also be considered.

**Meltzer, David (SMU)**

[2] *Bison, Snails, and Stable Isotopes: Late Glacial Paleoecology at the Folsom Site*

The Late Glacial paleoecology of the Folsom site (10,500 <sup>14</sup>C yr B.P.) has been reconstructed from independent lines of evidence, including records of oxygen and carbon isotopes from fossil land snails, and carbon and nitrogen isotopes from bison. Using data from bison and snails helps resolve the inevitable question of whether the bison isotope signature reflects local or distant conditions. Together, these data reveal a landscape cooler and drier and with a greater dominance of C4 grasses, than at present. The high incidence of C4 grasses in Late Glacial times may result from several factors, including lower atmospheric CO<sub>2</sub>, and differences in seasonal precipitation patterns; it also has broader implications for Late Glacial paleoecology.

**Memory, Melissa (National Park Service-Southeast Utah Group), Laura Martin (National Park Service-Southeast Utah Group), Susan Eininger (National Park Service-Southeast Utah Group) and Heather Carter-Young (National Park Service-Southeast Utah Group)**

[22] *Prehistoric Architectural and Rock Art Documentation along the Colorado and Green River Corridors, Canyonlands National Park, Southeast Utah*

The geographical significance of the confluence of the Colorado and Green Rivers in Canyonlands National Park is also significant to the history of southwest archaeology: providing the loose historic boundary between Anasazi and Fremont traditions. Although some sites along the river corridors are well known by archeologists, this report will present the preliminary findings of the first systematic effort to document the full range of architectural and petroglyph/pictograph sites within the River corridors and describe the relationship between the two cultural traditions, and if traditional definitions apply in these hinterlands.



**Mendoza, Ruben (CSU Monterey Bay)**

[142] *Wireless Archaeology: Satellite-Mediated Information Technology Applications in the Investigation of an Early California Mission*

In 2003 the CSU Monterey Bay Institute for Archaeology pioneered the successful deployment of a satellite-mediated wireless technologies approach designed to facilitate real-time Internet-based data capture, collections management, and information post-processing within the context of an authentic field setting. Two 18th century California missions - mainly, San Carlos Borromeo del Río Carmelo and San Juan Bautista - serve as demonstration project test sites for this "Wireless Technologies for Teaching and Learning" experimental projects initiative funded by congressional appropriation. This paper addresses the merits, prospects, and challenges of wireless archaeology in lab and field settings as realized via real-time telecommunications hosted at <http://archaeology.csUMB.edu/wireless/>.

**Menzies, Adam (University of Pittsburgh), W. James Stemp (Keene State College) and Gyles Iannone (Trent University)**

[108] *Variability in Household Lithic Economy at Minanha, Belize*

This paper examines variability in production and consumption of chipped stone material (chert and obsidian) from domestic contexts at the Classic Maya site of Minanha, Belize. By incorporating a chaîne opératoire approach to the study of lithic technology it is possible to address questions concerning raw material acquisition, production, skill, consumption and exchange within a wider social context. In particular, spatial and contextual comparisons are made between non-local and local cherts, obsidian tools, and formal vs. informal tools. The chaîne opératoire approach also allows the discussion to focus on variability of lithic use within and between different kinds of households.

**Mercado-Allinger, Patricia (Pat) [113] see Wheat, Patricia (Pam)****Mercado-Allinger, Patricia A. (Archeology Division Texas Historical Commission) and Bryan Jameson (Texas Archeological Stewardship Network, Texas Historical Commission)**

[127] *The Texas Archeological Stewardship Network: A Unique and Productive Partnership Between Avocational and Professional Archeologists*

The Texas Historical Commission created formal program of archeological volunteers in 1984 to enhance the agency's archeological outreach and preservation activities. This program, known as Texas Archeological Stewardship Network, (TASN) was the first of its kind in the nation and has proven to be an effective means for providing information and assistance across the state.

"Stewards" are motivated and experienced avocational archeologists who undertake a broad range of tasks. Over 100 stewards, including seven 'marine' stewards currently participate in the TASN. This paper will present information about the TASN and insights from an active member of the network.

**Mercer, Kristen (University of Idaho)**

[11] *Archaeological Interpretation for the Public: A Case Study from Northern Idaho*

This paper reports on an attempt to raise public awareness of historical archaeology in northern Idaho. Too often sites in the region have been excavated by archaeologists with the community knowing nothing about what the research uncovered. This work is a case study on public archaeology; the impetus for this research was the excavation of an early twentieth century farmstead. Materials from that excavation formed the basis of a traveling exhibit that included a survey on understandings of archaeology. What is presented here are the results of that survey on how archaeology is perceived in the Inland Northwest.

**Merewether, Jamie (Crow Canyon Archaeological Center) and Scott Ortman (Crow Canyon Archaeological Center)**

[104] *An Analysis of Late Pueblo II Ancestral Pueblo Basket-impressed Pottery*

Learning about the basketry technology of prehistoric people can be a challenge due to the poor preservation of archaeological material. This is true in Southwestern Colorado where few intact deposits in dry caves date to the Late Pueblo II period. During this time, however, the prehistoric potters sometimes used baskets as molds when forming pottery vessels. This technique left distinctive impressions on the exteriors of the pottery vessels. In this study, we will demonstrate how an analysis of the pottery and the basket-impressions can provide information about the basketry technology of this time period.

**Merino, Emilio (California State University, Los Angeles), James Brady (California State University, Los Angeles) and Cobb, Allan**

[112] *Mountains, Caves and Cosmovision: Preclassic Rural Settlement in Southeastern Peten*  
The exploration of a number of recently cleared hills uncovered the remains of rural settlement that was most likely outliers of the site of Poxte 1, 16 km southwest of Poptun. Survey revealed the remains of extensive Preclassic modification of a series of hills as well as the incorporation of a number of natural and artificial caves into site planning. All of the caves appear to be blocked and occupation terminates at the end of the Late Preclassic. Sabalam is important in demonstrating that the incorporation of sacred landscape into settlement affected even rural settlement from early in Maya history.

**Merrell, Carolynne L. (University of Idaho, Archaeographics)**

[137] *Birch Creek Revisited: Significance of Pictographs to Site Evaluation*  
Bison, Veratic, and Jaguar are familiar Birch Creek Valley sites that are routinely included when discussing early Idaho archaeology. While extensive material has been published regarding these sites, little mention has been made of the pictographs found in association with the other archaeological features. The recent recording and evaluation of pictographs from these and other nearby sites shows a similarity of style elements from the Plains, Great Basin and marginally, the Columbia Plateau. Contributing to the preexisting archaeology of Birch Creek, a chronology of these images presents a continuum of cultural information from the late Archaic through the Historic period.

**Merrell, Carolynne [36]** see Hill, Richard; see Rodman, Julie-anna

**Merrill, William [141]** see Hard, Robert

**Mesia, Christian (Stanford University)**

[160] *Excavations in the Wacheqsa Area at Chavin de Huantar*  
During the last two years excavations at the Wacheqsa area have exposed a deep chronological sequence in deposits of more than 4.00 meters deep. The successive occupations are composed of a series of fills, clay floors, rooms and platforms that together form the first archaeological contexts recovered from this area through scientific excavations in the last 30 years. This paper is a field report of the work carried out in the area in which the contexts and materials recovered will be presented as well as preliminary interpretations of the nature of the data obtained.

**Mesick, Cassandra (Brown University), Kelleigh Cole (Brigham Young University) and Zachary X. Hruby (University of California, Riverside)**

[152] *The Meanings of Mutilation: Interpreting the Scarring of Classic Maya Imagery*  
The mutilation of Maya sculpture has been neglected in the archaeological literature despite the frequent appearance of intentionally damaged monuments at many sites. These mutilated sculptures are usually characterized by systematic and localized patterns of scarring that can illuminate larger cultural phenomena such as Maya conflict and warfare. This presentation thus addresses the distribution, methods, and meaning(s) of such monument scarring. It employs lithic studies and comparative patterns to sketch a general approach towards interpreting sculpture mutilation, with due emphasis on the difficulties in discerning intention and imputing motive. Relevant data come from throughout the Maya Lowlands.

**Messer, Andrea (Penn State University)**

[147] *Sunken Treasure, Pirate Ships and the Media*  
Salvagers, scavengers and treasure hunters have searched for and found sunken ships from the Mediterranean to the Gulf of Mexico and around the world. Ocean going vessels from the ancient Greeks and Romans to the Spanish conquistadors and even recent world wars capture the public's imagination with unknown and untold riches. Every discovery from the Titanic to a trimere brings the thought of long lost gold to mind. Media coverage of these finds fuels the urge to find more, uncover more and score the treasure. Does media coverage of underwater archaeology, salvage and scavenge encourage treasure hunters or promote conservation?

**Messer, Andrea (Penn State University) [147]** *Discussant*

**Metcalf, Duncan [51]** see Jones, Kevin T.

**Mickelson, Katherine (The University of Alabama)**

[76] *Methodological Issues in Archaeobotanical Formation Processes*  
Previous research of formation processes has brought valuable insight to the understanding of

transformations of archaeobotanical assemblages. Most research has centered on natural/environmental and cultural transformations. Here, the explicit goal is to evaluate analytical transformations and demonstrate how these transformations influence inferences about past human-plant relationships. Results of the analysis of archaeobotanical analytical techniques using 200+ samples from sites throughout Southeastern U.S. are presented. This study indicates that many standard techniques and practices used by paleoethnobotanists introduce biases and illustrates how such biases can be avoided.

**Mickleson, Andrew (University of Alabama)**

[118] *A GIS Model of Human Load Transport: Its Theoretical Basis and Methodological Implementation*

A model of human walking and load transport was developed for Geographic Information Systems (GIS) implementation. The Spatial Caloric Cost Model (SCCM) utilizes data derived from physiological studies of human walking. The SCCM estimates caloric cost incurred by a hypothetical human walking and transporting loads across real landscapes. Digital Terrain Models and vegetational data layers are used to model the landsurface of interest. The model has a wide range of theoretical and analytical applications including Central Place Foraging Theory and catchment studies. An example of each application is presented and the implementation of the SCCM model in GIS, will be discussed.

**Miksa, Elizabeth J. (Desert Archaeology, Inc.)**

[23] *Technological and Provenance Variation in Native American Pottery from the Spanish Period to the American Territorial Period, Tucson, Arizona*

Historic O'odham pottery in Tucson was sought after by soldiers, settlers and indigenous people alike. Petrographic analysis of Historic Period Tucson pottery indicates that paste composition changed through time. Petrologic analyses and multivariate statistics were used to characterize the ceramic pastes and assess sand temper provenance against the Tucson Basin petrofacies model. In A.D. 1700, potters incorporated grog and volcanic sand into their paste. By ca. A.D. 1880, paste was tempered with a fiber and granitic sand mixture. Technological and provenance variations are related to changes in government and economy as southern Arizona moved from Spanish to American ownership.

**Miksa, Elizabeth J. (Desert Archaeology, Inc.)** [155] *Discussant*; [23] *see Lyons, Patrick D.; see Lavayen, Carlos*

**Miles, Katie**

[40] *Utilisation of Petrographic and Palynological Analysis in Chert Artifact Sourcing: Understanding Lithic Assemblage Variability*

In order to accurately provenance chert raw material types, a combined approach of macroscopic and microscopic (petrographic and palynological) techniques were applied to a sample of artifacts from the Bark site, Peterborough County, Ontario. This sourcing analysis, when used in association with technological analysis, allowed for the discernment of behavioural, functional and technological activities at the site, as well as providing a means for the interpretation of larger socioeconomic and sociopolitical interactions in the Trent-Severn waterway and greater Upper Great Lakes region.

**Millaire, Jean-Francois (McGill University)**

[99] *The Sacred Character of Ruins: Ritual Appropriation of Gallinazo architecture in the Viru Valley, Peru*

Excavations at Huaca Santa Clara in the Viru Valley (north coast of Peru), revealed that the site was the seat of an important Gallinazo polity until the 7th century AD--whose primary function was associated with food storage and redistribution. But evidences also reveal that the settlement was re-visited during the Late Intermediate Period to perform a major burial ceremony that involved both animal and human sacrifices. This event will be examined in the light of other cases of ritual re-occupation with the objective to illuminate the underlying beliefs associated with ruins in Prehispanic societies of the Peruvian north coast.

**Miller, Alex** [44] *see Pinto, Ana*

**Miller, Heather M.-L. (University of Toronto)**

[45] *Apprenticeships in Archaeology: The Role of Experimental Archaeology*

The teaching of archaeology in North America, unlike many disciplines, has always included both traditional lecture classes and apprentice-like courses involving "hands-on" learning - what

education specialists call kinesthetic learning or "muscle learning." This includes field schools and lab methods courses, as well as courses in experimental archaeology. While the former have maintained a steady importance in the field, experimental courses seem to have waxed and waned in popularity. The possible reasons for this variation are explored, and the role of experimental archaeology as a way to teach research methods discussed in relation to changes in archaeological theory.

**Miller, Joseph Alexander (University of Missouri, Columbia)**

[3] *Optimal Foraging Theory and the Fur Trade*

The fur trade was one of the most dynamic economic systems ever to be developed in North America. In the Illinois country, the fur trade acted along side disease and Euro-American expansion to dramatically change the nature of Native American faunal economies. By using optimal-foraging theory, along with historical ecology, a model of culture change can be developed that can explain variation in the faunal economy of protohistoric populations in the Illinois country.

**Miller, Myles (GMI)**

[48] *Peripheral Basins and Ephemeral Polities: INAA of Mimbres Black-on-White Ceramics and Insights into Mimbres and Jornada Mogollon Social Relationships*

Prehistoric groups inhabiting the Mimbres and Jornada Mogollon regions maintained close social relationships between A.D. 800 and 1150. Several models have attempted to explain the nature of this relationship. Contemporaneous populations of the Jornada region had a high degree of residential mobility across wide territorial ranges. Unique strategies were required to perpetuate social relationships between sedentary Mimbres settlements and the ephemeral polities of constantly shifting Jornada populations. Compositional analysis of Mimbres whiteware from the Jornada region offers important new insights and empirical data for evaluating strategies of boundary maintenance avoiding social conflict.

**Miller, Roberta Neil (Arizona State University), Christopher P. Garraty (Arizona State University) and Barbara L. Stark (Arizona State University)**

[13] *Local and Imperial Identities at the Edge of the Empire*

We compare town and countryside archaeological data from the western lower Papaloapan basin in Veracruz, Mexico, to three reference situations: the Tarascan-Aztec border, models of the Aztec empire from documents, and the nearby Aztec provincial head town of Cotaxtia. The material culture of the western lower basin, as reflected in the adoption of some aspects of Aztec symbols, suggest inhabitants negotiated a relationship with the Aztec empire while retaining local identities or affiliations. We further examine the differences between elites and commoners in maintaining these local versus imperial connections.

**Miller, Stanley [118] see Kramer, Stephenie**

**Miller, Virginia (University of Illinois at Chicago)**

[72] *Skeletons, Bones and Skulls in the Art of Chichen Itza, Yucatan*

Although a minor theme in earlier Maya monumental art, skeletal imagery became dominant at Chichen Itza during the Terminal Classic. Skulls and skeletal figures are depicted in all media, while real human bones served as architectural decoration. While some figures are probably supernatural or deity impersonators, the skulls represent those of decapitated sacrificial victims. The new emphasis on graphic death imagery does not necessarily demonstrate increased human sacrificial activity but rather is a reflection of ideological and political changes requiring the depersonalization of both captors and captives represented in art as well as large-scale and intimidating images of Itza power.

**Mills, Barbara (University of Arizona), T. J. Ferguson (Anthropological Research, LLC and University of Arizona) and John Welch (White Mountain Apache Tribe)**

[39] *Field Schools without Trowels: Teaching Archaeology and Heritage Preservation in a Collaborative Context*

From 2002-04, the University of Arizona and the White Mountain Apache Tribe collaborated in a Field School in Archaeology and Heritage Preservation. The curriculum was designed to provide benefits to the Tribe while at the same time teaching students an appreciation of contemporary Apache culture; archaeological ethics; principles of ruins preservation and damage assessment; laboratory methods; and traditional field techniques of mapping, survey, and excavation. This paper discusses how the research collaboration evolved over three seasons. It emphasizes how

tribal and university-based field school goals can converge and the specific benefits for all participants.

**Mills, Barbara (University of Arizona)** [131] *Discussant*; [98] *see Ferguson, T. J.; see Hollenback, Kacy*

**Milne, S. Brooke (University of Western Ontario)**

[45] *Stone Tool Apprenticeship and Enculturation in the Eastern Canadian Arctic*

The Early Palaeo-Eskimos of the eastern Canadian Arctic are best recognized archaeologically from the remains of their sophisticated stone tool technology. Despite this, however, little is presently known about how these peoples acquired this technological skill, from whom, at what age, where, and at what time of year. This paper presents data from several sites located in the interior of southern Baffin Island, which illustrates that stone tool apprenticeship among the Early Palaeo-Eskimos was not only seasonally and geographically specific but that it was also closely tied to enculturation and the process of landscape learning in this vast geographic region.

**Milne, Tony** [144] *see Evans, Damian*

**Milner, Claire (Pennsylvania State University)**

[29] *The Next Generation: Museum Techniques at Penn State's Matson Museum of Anthropology*

Richard I. Ford has been committed to providing museum and anthropological training to university students at all levels; communicating fundamental anthropological issues to the public; acting responsibly and ethically toward source communities, particularly Native Americans; and managing the material legacies of all cultures with great care. Penn State's Museum of Anthropology endeavors to adhere to these goals through innovative undergraduate education, public outreach, exhibition, and collections management. These activities are evaluated in light of modern museum practices and the recognition that museums exist to educate the public, serve the needs of diverse communities, and preserve irreplaceable collections for future generations.

**Milner, George (Penn State University)**

[83] *Lengthy Tomb Use Indicated by Human Remains from New Kingdom Tombs in the Valley of the Nobles, Egypt*

Several tens of thousands of specimens from a few hundred people have been found in Susan Redford's (Penn State) excavations of the New Kingdom Parennefer and Saite tombs in the Valley of the Nobles, Egypt. Mummies were discarded when tombs were robbed and were used for later burials, as stables, and as dwellings. Intact bones and mummy fragments were often found in rubble surrounding the tombs, whereas bones from within them tended to be burned and broken. The latter came from mummies used as fuel by local villagers who occupied the tombs into the early twentieth century.

**Milner, Nicky** [119] *see Bailey, Geoff*

**Minc, Leah (Oregon State University, Corvallis), Severin Fowles (University of Wales, Swansea), Samuel Duwe (University of Arizona, Tucson) and David Hill (University of Texas, Austin)**

[48] *Settlement Patterns and Clay Procurement: Trace-Element and Petrographic Analyses of Pre-Classic Pottery from the Taos District, NM*

The Coalition Period marked a period of rapid settlement pattern change in the Taos District as dispersed hamlets were replaced by tightly clustered pueblos and ultimately by large aggregated villages. In this paper, we consider how this settlement aggregation affected the procurement of raw clays used in the production of local Black-on-White ceramics within the Rio Grande del Rancho drainage. Trace-element and petrographic data reveal a noticeable reduction in the diversity and quality of clay sources used by local potters, a trend tied to newly restricted procurement strategies and the formation of buffer zones between village aggregates.

**Minchak, Scott (Texas A&M University)**

[109] *Quarry Sites: Modeling Extraction, Maintenance, and Subsistence through Differing Resolution*

Activities at a site may be discrete, may overlap, or may not occur. Following LaPorta's model of quarry development, the exploitation of a quarry depends upon the constraints of the rock. The development of a quarry corresponds to the development of activities either in or near a quarry site. In addition, the degree to which activity occurs is dependent upon the magnification applied

to a study - providing differing resolution for analyses. The Smiths Basin site, in northeastern New York, and the Gault site, in central Texas, will serve as complimentary examples.

**Minichillo, Tom [4]** *see Bird, Catherine*

**Mink, Philip (Kentucky Archaeological Survey), Gwynn Henderson (Kentucky Archaeological Survey) and David Pollack (Kentucky Heritage Council)**

[95] *An Examination of Statewide Geographic Information Systems Role in Elucidating Regional Archaeological Research Questions: A Case Study Examining Woodland Mound Distribution in Kentucky*

Numerous states (Kentucky, Arizona, Illinois, Iowa, Minnesota, Ohio, California, etc.) have or are in the process of converting their paper archaeological records into a digital format. The new electronic systems invariably include a Geographic Information System (GIS) to manage the geospatial data. The Kentucky Archaeological Survey, which manages the cultural resources GIS for the state of Kentucky, has begun developing regional research questions by making use of its unique ability to examine the entire state archaeological data set with just a few mouse clicks. In this paper we explore the distribution of Woodland period mounds and earthworks in Kentucky. Despite the inherent problems found within all statewide geographic information systems there are identifiable spatial patterns in the distribution of prehistoric mounds and earthworks that can be used to formulate and address Woodland period research questions relating to the location and distribution of mounds and earthworks. General issues related to employing a statewide GIS in the formation of regional questions, and specific queries with regards to Woodland mound and earthwork distribution in Kentucky will be addressed.

**Minnis, Paul (University of Oklahoma) [145]** *Discussant*

**Minnis, Paul E. (University of Oklahoma) and Michael E. Whalen (University of Tulsa)**

[6] *At the Other End of the Puebloan World: Feasting at Casas Grandes*

Perhaps the largest ancient Puebloan polity was centered at Casas Grandes (Paquime) in northwestern Chihuahua. Among other characteristics was intensive and extensive production and processing of foodstuffs as ritual. Not only did such feasting occur at the Casas Grandes, the center, but also in outlying communities. The organization of feasting behavior offers clues about the organization and scale of the Casas Grandes polity.

**Misarti, Nicole [71]** *see Jordan, James*

**Mitchell, Mark (University of Colorado) and Christine Ward (University of Colorado)**

[52] *The Bluff Great Kiva in Regional Context*

Great kivas are integral elements of great house communities in the northern Southwest but relatively few have been excavated and little is known about their structure. Excavations conducted between 1996 and 2004 by the University of Colorado at the Bluff great kiva provide data about the form of such features, and the uses to which they were put after the collapse of the Chaco system. Floor features were explored, and excavations in the kiva's antechambers documented a series of post-Chaco occupations. We compare these results with those from other excavated great kivas in the Northern San Juan region.

**Mobley-Tanaka, Jeannette (University of Colorado Museum)**

[158] *Households, Communities, and the Social Reorganization of the Pueblo III World*

The late Pueblo III (A.D. 1200-1300) occupation of the Mesa Verde region was characterized by aggregation of dispersed households into large villages, and ultimately, by the abandonment of the villages and the region. Evidence for the economic interactions among households indicates that this change from dispersed to aggregated coincided with a shift in household interaction networks. The shift from interaction networks centered in households to those centered in village membership created a fundamental change in the social landscape that may have significantly impacted the response to social and environmental stresses, and thus shaped the abandonment of the Mesa Verde Region.

**Mock, Shirley Boteler (University of Texas, ITC)**

[159] *The Rise and Fall of Tepeu 3 on the Northern Belize Coast*

Since 1997, the Northern Belize Coastal Project (NBCP) has attempted to fill in the archaeological gaps on the north central Belize coast through excavations and survey. The ceramic assemblages recovered constitute the peak of the Late to Terminal Classic period and

allude to the role of these communities in thriving seaborne commerce. With the advent of more ceramic investigations across the Maya northern and southern lowlands the Uaxactun type descriptions, although useful as a primary classification tool, do not reflect the variety of or variation in Tepeu 3 ceramic types at these sites. A more fine tuned analysis of certain type characteristics allows for the integration of these sites into a wider network of long-distance interactions and an understanding of their role in shifting political hierarchies and boundaries during this crucial time period.

**Modzelewski, Darren (University of California, Berkeley) and Sara Gonzalez (University of California, Berkeley)**

[162] *A Community Investment: Making an Archaeology of Colonialism Matter*

For over a decade the Fort Ross Archaeological Project has collaboratively developed a research program at Fort Ross State Historic Park that attempts to understand the breadth of Native-European relationships within this colonial setting. Using a holistic approach to culture-contact studies this project integrates archaeology with Native perspectives. While incorporating indigenous experiences into archaeological practice poses obvious benefits to archaeology, generally little thought is given to how such research is viewed within indigenous communities or directly benefits them. Current collaborative projects between the Kashaya and FRAP will be discussed in this paper.

**Moe, Jeanne (Bureau of Land Management) and Margaret Heath (Bureau of Land Management)**

[113] *Putting Research to Work: Improving K-12 Archaeology Education Programs*

Educational research and evaluation of mature heritage education programs have provided us with ways to improve both curriculum for K-12 audiences and professional development for educators. Increasingly, archaeology educators are using national curriculum models for developing new curricula, adopting current best practices, integrating national and state education standards, and keeping abreast of new trends and theoretical developments within education. While striving to better serve teachers and their students, archaeology educators must also serve the archaeological community and land managers by instilling stewardship values and helping protect heritage resources.

**Mondini, Mariana (Universidad de Buenos Aires) and Dolores Elkin (Conicet)**

[130] *The Antofagasta de la Sierra Basin, Argentina: Current Zooarchaeological and Taphonomic Research and New Directions*

Antofagasta de la Sierra, in the Andean Puna of Argentina, has provided original information on the structure of the archaeofaunal record in this part of South America, the introduction of humans into the predator community, and their coevolution with the regional fauna. This presentation summarizes some of the main issues to which local zooarchaeology has contributed: carnivore taphonomy, the human peopling of this high-altitude Andean desert, and human adaptations during the mid-Holocene. It analyzes their regional implications, and their relevance to issues such as the need of new approaches in zooarchaeology and taphonomy that consider explanatory arguments at a macro-scale.

**Mongelluzzo, Ryan (University of California, Riverside), Judith Valle (Universidad de San Carlos), Chris Hewitson (University of Birmingham) and James Doyle (Vanderbilt University)**

[91] *The Palace and Group III at Holmul, Guatemala: Architecture and Activity*

Work in past seasons at the palace and Group III of the ancient Maya site of Holmul, Guatemala has revealed much about the former inhabitants of the area. Architectural features and building episodes reveal interesting differences between Late and Terminal Classic inhabitants. The positions of walls, doorways, benches, and cord holders are all important in comprehending past behavior of both elites and non-elites. Using spatial and built environment studies more information is gained about ancient Maya architectural design and functionality.

**Monroe, J. Cameron (Washington University in St. Louis)**

[77] *The Architecture of Political Power: Spatial Organization and Bureaucracy in Pre-Colonial Dahomey*

The built environment provides a window into elite strategies for establishing political order, particularly the manner in which social hierarchy is materialized. I explore this issue in relation to the West African Kingdom of Dahomey. I trace the relationship between royal architecture and the process of state formation in the era of the trans-Atlantic slave trade. Evidence from a number

of recently identified royal palaces as well as relevant ethnohistorical sources are drawn upon. This data supports the notion that architecture played an important role in facilitating the social transformations associated with state formation in Dahomey, and provides insights into the nature of bureaucracy in emergent states.

**Moore, Katherine (University of Pennsylvania)**

[136] *Early Domestic Camelids in the Southern Lake Titicaca Basin, Bolivia*

Recent research on Formative economies around Lake Titicaca shows that herding domestic camelids was a dominant activity. Even so, fish complemented camelid meat and periodically was more important than other meat sources. Models from ethnohistoric and contemporary observations assumed that Formative camelids would have been similar to modern llamas and alpacas. In fact, metric analysis of skeletal remains does not offer strong support for this assumption. Skeletal metric data compiled from excavations at Chiripa and Kala Uyuni suggest that the camelids in this region, relatively recently domesticated, deserve careful analysis to uncover a possible non-llama, non-alpaca domestic camelid.

**Morales, Jorge (Universidad de las Americas) and John Carpenter (Instituto Nacional de Antropología e Historia Sinaloa)**

[23] *Sands of La Playa (Son F:10:3): Developed Preliminary Petrofacies Model with Application to Trincheras Ceramics, (Sonora, Mexico)*

The petrofacies provenance analysis of the La Playa site ceramic assemblage addresses chronological, typological, and technological aspects of the Trincheras ceramic tradition. This study is based on the application of the 'Actualistic Petrofacies Modeling of Temper Provenance' developed by Miksa and Heidke (2001). The paper demonstrates how petrographic characterization of pottery is changing our understanding of the ceramic production in the Trincheras area, providing new data to evaluate the relationships between the Trincheras tradition and the ceramics of adjacent regions.

**Morandi, Steven (Boston University) [41] Discussant**

**Moratto, Michael (California State University, Fresno) [120] Discussant**

**Morell-Hart, Shanti (University of California, Berkeley)**

[152] *Paleoethnobotanical Landscapes in the Northern Maya Lowlands*

This paper presents a brief review of research projects utilizing macrobotanical materials recovered from archaeological sites in the Northern Maya Lowlands. It explores the potential for future macrobotanical investigations as a component in studies of pre-Hispanic Maya foodways. Used as a case study are the materials recovered from the Yalahau Region, in Northern Quintana Roo, Mexico. Approached here are the ways in which macrobotanical remains can be used to explore practices of everyday life, related not just to the basic necessity of subsistence, but also to the richness of experience associated with the tending, recovery, preparation, and consumption of foods.

**Moreno-Cortes, Jose E. [116] see Davis-Salazar, Karla L.**

**Morgan, Christopher (University of California, Davis)**

[162] *A Reassessment of Hunter-Gatherer Food Storage and Mobility: Late Prehistoric Western Mono Acorn Cache Foundations*

Food storage by hunter-gatherers is often seen as a significant player in the evolution of sedentism due to its effect of tethering populations to storage locations. The distribution of Western Mono acorn caches in the Sierra Nevada suggests otherwise. Western Mono acorn caches are expedient food storage facilities geographically distributed in a manner fostering seasonal residential mobility, a behavior that likely led to the success of the Mono in outcompeting more sedentary groups. This suggests that the role storage plays in the evolution of sedentism is variable and determined by the human ecology of the area in which it occurs.

**Morgan, David W. (Northwestern State University of Louisiana)**

[143] *The Parkway Mound Group of Coastal Alabama: Analysis of Collections from the 1930s*

In 1935 David DeJarnette and John Buckner collected pottery from a complex of nine sand mounds on the beach of southwestern Alabama. Two years later they dug a 5x60 foot trench into one of the mounds. They found numerous pottery sherds and several whole vessels. What is known of their findings, however, is limited to a succinct 'preliminary report' to the National Park Service, in which the authors defined several pottery types. The site is gone, but an analysis of



the collections housed at Moundville Archaeological Park sheds new light on the age and developmental history of the mounds.

**Morgan, Molly [81]** *see Demarest, Arthur A.*

**Morgenstein, Maury (Geosciences Management Institute), Christin Engstrom (Geosciences Management Institute) and Celeste Henrickson (Geosciences Management Institute)**

[162] *Geoarchaeological Investigations in Yosemite Valley*

A study initially scoped to seek multiple avenues of obtaining chronological information for discrete sites led to progress on research questions with broad implications for explicating the archaeological record of Yosemite Valley. The results of correlating the stratigraphic framework of sedimentation and micromorphology of site landforms offer promise for: assigning chronology to archaeological sites that appear to lack materials typically sought by archaeologists to address chronological questions; and, the relatively inexpensive use of data types that while often collected (e.g., bulk soil samples) usually go into curation facilities unanalyzed with little hope that future funding or regulatory impetus will make the data of use to researchers.

**Moriarty, Matthew D. (Tulane University), Christopher T. Jensen (Brigham Young University) and Richard E. Terry (Brigham Young University)**

[73] *Modeling Classic Maya Settlement Agriculture at Motul de San Jose: New Insights from Indigenous Soil Classification and Settlement Pattern Studies*

Recent multi-disciplinary investigations at Motul de San José have included a variety of studies focusing on soil resources. An investigation of Itzá Maya soil classification was combined with traditional pedoarchaeological techniques to produce a composite soil classification system with modern functional correlates. The synthesis of these data with settlement pattern data suggests a strong correlation between ancient Maya settlement and specific soil classes. Data from these investigations are used to model ancient Maya settlement agriculture at Motul de San José.

**Moriarty, Matthew D. [73]** *see Kerns, Eric S.; see Yorgey, Suzanna C.*

**Moriarty, Matthew [73]** *see Webb, Elizabeth; see Haldeman, Benjamin*

**Morin, Eugene (McGill University)**

[62] *Bone Grease Rendering and Factors Underlying Bone Selection*

In his study of bison leg fat, Brink (1997) suggested that bone grease weight alone is a more useful gauge of grease utility than Binford's measure of percentage of oleic acid. However, when the percentages of parts selected by the Nunamiut for bone grease manufacture are plotted against bone grease weight in bison legs, two linear relationships, not one, can be distinguished. These results appear to imply that, in addition to bone grease weight, a second factor, probably the percentage of oleic acid, also seems to play a significant role in the Nunamiut selection of bones for grease rendering.

**Morris, Blake [27]** *see Backhouse, Paul*

**Morris, Ian (Stanford University) [114]** *Discussant*

**Morris, John [33]** *see Teeter, Wendy Giddens*

**Morrison, Bethany (Western Connecticut State)**

[24] *Juggling a Family and Career*

This poster presents first-hand accounts from moms who have become archaeologists, archaeologists who have become moms, and others who are wondering how they'll do it.

**Morrison, Kathleen (University of Chicago)**

[47] *Foods of Kings, Foods of the Gods: Cuisine and Power in South India*

Although ritual and status distinctions are often indexed through food practice, the complexity of such practice is rarely appreciated in archaeological analyses. Using a set of well-documented cases of divine and royal meals in precolonial southern India I examine to what extent elite cuisine is marked by distinctive ingredients, dishes, modes of preparation, and modes of service, and explore the relationship between food practices and changing forms of food production and status differentiation.

**Morrison, Kathleen D. [8]** *see Lycett, Mark T.*

**Moses, Melanie** [76] *see Burger, Oskar*

**Mount, Jerry (University of Iowa) and Kevin Schwarz (Southern Illinois University)**

[118] *Data Visualization as a Research Tool: Statistical Techniques for Asking and Answering Spatial Questions about Archaeology*

The authors explore data visualization methods derived from spatial statistical techniques in a GIS setting to address anthropological questions. Data visualization is a broadly theoretical topic because visual imagery can be developed to analyze spatially dependent relations within sociocultural phenomena, relations that are obscured in analyses of mapped archaeological sites using standard statistical and overlay techniques. We utilize nearest neighbor hierarchical clustering, spatial autocorrelation tests, Ripley's K, and adaptive filtering to generate powerful visual output about attributes of archaeological sites to help us to identify clustering, dispersion and other characteristics of spatial data. Example analyses are presented from a Mississippian site in Tennessee and a Postclassic Maya site in Guatemala.

**Mountjoy, Joseph (University of North Carolina at Greensboro) and Nathaniel Mountjoy (El Pantano Project)**

[149] *Capacha in West Mexico: When, Where and What?*

A Capacha phase of the West Mexican Formative was proposed by Isabel Nelly in 1980, based primarily on research she conducted in Colima in the 1970's. Since 2000 we have explored three cemetery sites in the highlands of northwestern Jalisco that have produced pottery and stone artifacts of the same kinds assigned to the Capacha phase by Kelly. These finds, associated with numerous radiocarbon dates, allow us to suggest some major revisions in Kelly's formulation of the Capacha phase.

**Mountjoy, Nathaniel** [149] *see Mountjoy, Joseph*

**Moyes, Holly (University at Buffalo)**

[112] *Ritual Frequency, Ritual Practice: 2000 Years at Chechem Ha Cave*

Chechem Ha Cave is an ancient Maya ritual cave site located in western Belize that has been under investigation by the Western Belize Regional Cave Project since 1997. Radiocarbon dating has demonstrated that the site was utilized from the early part of the Middle Preclassic period to the Terminal Classic. Deep sub-floor deposits offered a unique opportunity to study variations in ritual frequency in the cave over time. To understand the nature of cave use among the ancient Maya, these data are correlated with both environmental and regional socio/political histories.

**Mudar, Karen (National Park Service)**

[144] *Copper and Cattle: Animal Exploitation at Copper Production Sites Dating to the 2nd-1st Millennium B.C. in Central Thailand*

Analysis of copper smelting debris from excavations at three habitation sites dating to the second and first millennium B.C. in central Thailand has identified evidence for an increase in metal production over time. An assemblage of well-preserved faunal remains from the same sites contains wild mammals, birds, fish, turtles, and domestic mammals. Analysis of the faunal remains from the same time periods explores links between foraging strategies, animal husbandry practices, and environmental changes associated with copper production. Results suggest that wild animal exploitation was replaced by heavier emphasis on domestic resources over time, especially pig and dog, coterminous with environmental change.

**Mueller, Jenn (Washington State)**

[131] *Power and Prey: Faunal Resources and Social Power in a Chacoan Community*

An understanding of Puebloan society must include a consideration of the way in which community social dynamics structured power relations. Excavations at Cox Ranch Pueblo, a southern Chaco-period community, have yielded faunal remains from several household middens, a Great House, and the Great House midden. Comparison of the faunal remains from different areas within the site documents how individuals within the community accessed and utilized animals. This analysis offers insight into how the use of daily consumables and avian elements linked to ritual events helped to structure power relations within the community.

**Mueller, Raymond (Richard Stockton College of NJ), Arthur Joyce (University of Colorado, Boulder) and Michelle Goman (Cornell University)**

[152] *Anthropogenically Induced Environmental Change in the Lower Rio Verde, Oaxaca, Mexico as Evidenced by Recent Coastal Lagoon Formation*

Recent work by an interdisciplinary team expanded previous research showing the effects of

highland Oaxaca erosion on lowland areas. Stratigraphic and faunal analyses of coastal lagoon cores indicate a change from an open bay to a barrier-enclosed lagoon. We argue these changes correlate with increased sediment eroded from the Oaxacan highlands during periods of agricultural and demographic expansion. The cores indicate coastal changes occurred circa 2500 YBP, a date similar to evidence for changes in floodplain geomorphology. This indicates the synchronous change of floodplain dynamics and coastal change related to anthropogenic effects in the drainage basin.

**Muhsen, Sultan (Damascus University)**

[92] *New Light on the Levantine Palaeolithic*

This paper presents an overview of and context for new archaeological, paleontological and anthropological discoveries from the Syrian Palaeolithic sites of Nadaouiyeh, Hummal, Umm el Tiel (el Kowm region), Jerf Ajle (near Palmyra) and Dederiyeh (north of Aleppo). A "chaîne opératoire" approach to the archaeological material helps to create a coherent and dynamic new picture of the technical, economic, and social behavior of paleolithic humans. This emerging information from sites currently under excavation has important implications for the wider regional reconstruction of the Levantine Paleolithic.

**Munoz, Rene [91]** see Machovec-Smith, Kimberly

**Muñoz, Sebastian (CONICET-UBA)**

[130] *Human-Pinniped Relationships in Tierra del Fuego Island During the Holocene: Current Issues and Future Research Agenda*

Sea lions have been one of the main resources used by Holocene hunter-gatherers in Tierra del Fuego Island, Southern Patagonia. Yet, in spite of their importance, many aspects of this issue remain to be studied if we are to understand the variability involved in human-pinniped relationships since the human peopling of the region at the end of the Pleistocene. This presentation deals with our current knowledge of the problem, introduces new archaeofaunal data from the Atlantic coast of the island, and discusses different lines of zooarchaeological and taphonomic inquiry that need to be developed in future.

**Munro, Natalie (University of Connecticut) and Ofer Bar-Oz (University of Haifa)**

[130] *The Gazelle Project: An Integrative Zooarchaeological Approach to Reconstructing Human-Gazelle Interactions in the Prehistoric Southern Levant*

The gazelle project investigates the evolution of gazelle-human relationships over the last 200,000 years in the southern Levant. Trends in gazelle (*Gazella gazella*) demographic profiles, body-size, and relative abundance provide some of the earliest evidence for cultural control of animal populations, although the gazelle was never domesticated. Human control of gazelles is important for understanding ungulate domestication in Southwest Asia, yet agreement over the nature of this control has never been reached. This project reconsiders gazelle exploitation by combining data from modern gazelle populations with standardized taphonomic, body-size, age, and sex data from multiple prehistoric sites in the southern Levant.

**Munson, Jessica (University of Arizona), Charles Riggs (Fort Lewis College) and Scott Van Keuren (Los Angeles County Museum of Natural History)**

[98] *Social Integration of Puebloan Architecture in the Mogollon Rim Region: An Open Space Analysis*

Architectural space structures social interaction by defining the physical boundaries and spaces in which people carry out activities of daily life. Open spaces, such as plazas, function simultaneously as inclusive and exclusive mechanisms influencing the degree of social integration within Pueblo society. Using methods adapted from Potter's (1998) interpretation of space syntax, we explore the variability of open space in late prehistoric sites in the Mogollon Rim region. Results suggest that architectural design and village layout contributed to increased opportunities for social integration following the migrations at the onset of the Early Pueblo IV period.

**Munson, Joshua (Crow Canyon Archaeological Center)**

[10] *Replicated Structures, Guiding Questions, and Learning about the Past*

While Crow Canyon's Pueblo Learning Center was being constructed, the education department was involved in designing the instructional activities that would take place in the new facility. Part of the challenge was trying to understand how the new lesson plans could best be integrated into the existing curriculum. During this process, a set of Guiding Questions was created to focus

instruction and to alert students to the important ideas that they should consider during their learning experience at Crow Canyon. This presentation focuses on the Center's revised curriculum and the significant role of these guiding questions.

**Munson, Marit (Trent University)**

[94] *Rock Art Research in the Galisteo Basin: Petroglyph Hill, New Mexico*

This poster describes recent research at Petroglyph Hill, New Mexico, considering the site's place in the Galisteo Basin both topographically and culturally. The accumulation of petroglyphs is difficult to date, but the wide range of imagery and styles suggests that the hill has remained a landmark for multiple cultures through centuries of change.

**Murillo Herrera, Mauricio (University of Pittsburgh)**

[32] *The Cultural Context of Arenal Phase Cemeteries in NW Costa Rica*

The Arenal phase (early 500 BC-1 AD and late 1-600 AD) is a local expression of the Tempisque (500 BC-300 AD) period in the cultural sequence of the Northwestern Costa Rica. This period was characterized by dispersed, emerging village societies, with rapid demographic growth, and with social differentiation continuously more marked. The data gathered so far do not reflect a completely sedentary society. Subsistence activities were mainly based in the collection of wild plants, and in gardening, hunting and fishing. Establishing questions centered on social aspects of the period, as starting points in the archaeological research, is the way for obtaining a clearer picture of it.

**Murphy, Terrence (Colorado Archaeological Society) and Kevin Black (Office of Archaeology and Historic Preservation, Colorado)**

[127] *PAAC (Program for Avocational Archaeological Certification) in Colorado*

The Program for Avocational Archaeological Certification is designed to be a mutually beneficial educational program for avocational and professional archaeologists. It was established in 1978 by the Colorado Archaeological Society (CAS) and the Office of the State Archaeologist (OSAC). It provides a means for CAS members and other citizens of Colorado to obtain formally recognized levels of expertise outside of an academic degree program. It also facilitates contributions by avocationalists to public service and assistance in education, management of cultural resources, research and protection of archaeological resources. PAAC's intent is to complement, not replace, existing university and governmental training programs.

**Murray, Andrea (California State University, Fullerton)**

[49] *Indicators of Domestication among an Assemblage of Chenopodium quinoa Seeds from Southern Peru*

Past paleoethnobotanical studies have identified several morphological characteristics that can be used to differentiate wild varieties of *Chenopodium* spp. from their domesticated counterparts. This study utilized a combination of scanning electron and light microscopy to determine whether morphological indicators of domestication were present among an assemblage of *Chenopodium quinoa* seeds from Jiskairumoko -- an archaic period residential site in the Lake Titicaca Basin of Peru. This poster discusses the methods used in the examination of the assemblage, and highlights the results of the study.

**Murtha, Timothy (Penn State University)**

[12] *Geomatics and Ekistics: Towards a Science of Classic Maya Settlements*

New spatial data acquisition, organization, and analytical tools are transforming lowland Maya settlement pattern research. This paper reviews new techniques for acquiring settlement data in the challenging lowland environment and explores quantitative analysis of Maya settlement patterns. Two case studies are reviewed, Caracol and Tikal.

**Myer, Jennifer [143] see Dumas, Ashley**

**Myers, Elizabeth (MIT) and Marc Richard (MIT)**

[42] *Copper and Copper-alloy Artifacts from High Status Burials at the Pyramids at Moche Site, Peru*

In their 1978 monograph Christopher Donnan and Carol Mackey document nine, high status, adult male burials they excavated within a mud brick platform on the plain between the Huaca del Sol and Huaca de la Luna at Moche. All are Moche IV burials, concentrated in a cemetery reserved for individuals of a specific sex, age group, and status. The burials include copper and copper-alloy objects in close association with the interred: disc headdresses, face coverings,

tweezers, and assorted implements. We present the results of our analyses of the composition, fabrication methods, and lead isotopic signatures of these artifact materials.

**Nagaoka, Lisa (University of North Texas)**

[4] *Seal Butchery and Element Fragmentation Patterns at the Shag Mouth Site, New Zealand*  
Detailed examination of the Shag Mouth faunal assemblage has shown that overall foraging efficiency declined significantly as a result of resource depression. Patch choice models predict that given this decline in foraging efficiency, the intensity with which large prey such as seals were exploited might have also changed over time. Specifically, changes in the body parts transported as well as more intensive use of skeletal elements through grease and marrow extraction through time are expected. Data indicate that foraging efficiency declined significantly enough to affect seal carcass exploitation, but did not result in more intensive use individual skeletal elements.

**Najjar, Rosana [156] see Bezerra de Almeida, Marcia**

**Nakassis, Dimitri (University of Texas at Austin), William Caraher (University of North Dakota) and David Pettegrew (The Ohio State University)**

[100] *Siteless Survey and Intensive Data Collection in an Artifact-rich Environment: Case Studies from the Eastern Korinthia, Greece*

Archaeological survey in the Mediterranean has become increasingly intensive over the last 20 years, producing more variable and complex data sets and allowing more sophisticated reconstructions of regional histories. Yet more intensive methods have refocused the scope of Mediterranean surveys from "region" to "micro-region," consequently inviting criticism for not addressing research questions framed by a large-scale, regional perspectives rooted in analytical categories of "settlement" and "site." This paper uses results from a "siteless" survey in southern Greece to show how more intensive data sets can produce a valuable contribution to 'big picture' historical and archaeological issues in a Mediterranean context.

**Nakazawa, Yuichi (University of New Mexico), Jun Takakura (Hokkaido University) and Masami Izuho (Sapporo Buried Cultural Property Center)**

[14] *Stone Tool Assemblage Diversity during the Last Glacial Maximum in Hokkaido, Japan*  
The Upper Paleolithic assemblages dated ca. 21,000 - 18,000 B.P. (the Last Glacial Maximum) in Hokkaido, which have been recovered from secure stratigraphic contexts during the last three decades, are characterized by diversity in stone tool classes. We examine the question whether the empirically recognized diversity among the LGM lithic assemblages is explained by sample size effect and/or behavioral variables including occupational intensity and redundancy, duration of site occupation, and raw material availability. Richness and evenness are employed to measure assemblage diversity. Our examination will contribute to understanding assemblage composition variability in Paleolithic archaeological record.

**Nance, C. Roger (UCLA), Jan de Leeuw (UCLA), Kathy Prado, and David Verity**

[157] *Toward an Archaeological Sequence for the Etzatlán Region of Jalisco, West Mexico*  
Major ceramic types from three sites excavated by Stanley Long in the 1960's and curated at UCLA have been seriated into an archaeological sequence for each site individually as well as for level/square samples from all three sites collectively. We used the statistical technique of correspondence analysis. Findings are supported by cultural stratigraphy at the three sites and recently obtained radiocarbon dates from other sites in Jalisco which anchor the late end of the sequence. Results are also compatible with general findings from Michoacan which link Classic, Early Postclassic, Late Postclassic developments there to ceramic shifts in Central Mexico.

**Nauman, Alissa L. (Washington State) and Andrew L. Duff (Washington State)**

[158] *Engendering the Landscape: Resource Acquisition, Artifact Manufacture, and Household Organization in a Chacoan Great House Community*

The use of artifacts and design attributes to reconstruct household kinship relations has a storied history in archaeology. Ceramic sociology, though flawed, had the explicit aim of engaging anthropological issues with archaeological data. Our aim here is to build on this intent with an eye towards the gendered acquisition, manufacture, and use of household artifacts at Cox Ranch Pueblo, a Chaco-period community in the Cibola Region. We situate household activities with respect to the local landscape and use these to infer how this articulated with gender, learning frameworks, and traditions.

**Neal, Lynn (EnviroSystems Management)**[24] *I Hit the Ceiling and I'm Still Picking out the Glass*

Glass Ceiling Syndrome was identified as an important issue in the 2003 SAA Member Needs Assessment Survey, with 40% of respondents identifying the syndrome as very common or common. The Glass Ceiling Commission released a 2003 report stating that only 7-9% of senior managers at Fortune 1000 firms are women, compelling considering women make up half the nation's workforce. Highly educated and/or experienced women face their biggest challenges at upper levels of corporations and universities. I spoke with a number of high-level, professional women in archaeology and they told me their stories, none of them cleanly shattering the glass.

**Neeley, Michael (Montana State University), John Fisher, Jr. (Montana State University) and Robert Donahoe (Belgrade, MT)**[27] *Thermally-Altered Stone: Experimentation and Interpretation from North-Central Montana*

Thermally-altered stone (TAS) constitutes an abundant component to many archaeological sites in the Northwestern Plains. Despite its numerical abundance, analytical and interpretative efforts pale in comparison to other classes of material culture. One avenue for improving and enhancing the interpretive potential of TAS is through experimentation. This poster examines TAS created experimentally from several different functional contexts (hearths, stone boiling, baking) and applies the results to interpret thermally-altered stone from two sites along the Marias River in north-central Montana. Preliminary results point to variation in the types and intensity of thermal activities at these sites.

**Neely, James (University of Texas, Austin), Carlos A. Rincon Mautner (University of Nevada, Las Vegas) and Raul Hernandez Garciadiego (Alternativas y Procesos de Participacion Social A.C., Centro de Servicios para el Desarrollo de Tehuacan A.C.)**[116] *The Purron Dam Complex Revisited*

Survey in the Barranca Lencho Diego has disclosed archaeological sites and features associated with the monumental Purron Dam. Canals, as well as probable agricultural fields up-stream from the dam have added new data concerning agricultural production within the barranca as well as the construction and function of the dam itself. Remnants of canals and probable fields down-stream from the dam also provide new perspectives as to the irrigation function of this large construction. Newly discovered associated sites date from the Formative into the Post-Classical. These data are briefly considered relative to the economic and socio-political reconstructions of earlier studies.

**Neely, James** [116] *see Rincon Mautner, Carlos*

**Neff, Hector (CSULB)**[80] *Holocene Climatic Variation in the Neotropics and its Impact on Cultural Evolution: The Pacific Guatemalan Record*

The Pacific Coast of Guatemala is a well-watered, fertile region where archaeological remains document high pre-Columbian population densities along with monumental art and architecture. High-resolution climatic records from mangrove sediments demonstrate substantial variation in rainfall beginning about 5000 years ago. A prolonged dry and variable period between about 4000 and 3000 years ago coincided with the appearance of sedentary villages of the Early Formative Period. Population and investment in monumental architecture show several peaks during a long period of favorable conditions from about 2800 years ago until 1000 years ago. Dry and variable conditions after about 1000 AD brought collapse.

**Neff, Hector** [25] *see Dudgeon, John*; [48] *see Creel, Darrell*; [50] *see Plunket, Patricia*

**Neff, Linda (Northern Arizona University)**[74] *Using Technology to Preserve, Promote, and Teach Navajo History and Culture*

Native American education is currently facing many new challenges. One of the most pressing challenges and promising opportunities includes the impact of technology on indigenous peoples. This paper provides examples of how Navajo educators have worked with applied archaeological educators, instructional technologists, and telecommunications specialists to use technology to help preserve, promote, and teach their history and culture. Through this partnership, we are able to design and deliver lesson content that helps the bicultural student to become a member of the dominant society while also maintaining and empowering them with regards to their traditional upbringing.

**Negrino, Fabio** [44] *see Riel-Salvatore, Julien*

**Neill, Christopher (Universidad de Zacatecas)**

[157] *Ceramic Typology and Cultural Meaning: The Engraved and Incised Wares of La Quemada, Mexico*

The current engraved/incised ware typologies for the Malpaso valley complex are examined for their value as socio-cultural indicators. It is argued that the proposed hypotheses require testing, and that alternative explanations need to be contemplated. It is contended here that many of the social inter-actions that are important to the political-economies of past societies are not reflected in ceramic production and distribution. The kinds of interactions represented by ceramic type-frequency distributions would be more domestic in nature and more appropriately related to the social economies of potters.

**Neiman, Fraser (Monticello) and Karen Smith (Monticello)**

[3] *How Can Bayesian Smoothing and Correspondence Analysis Help Decipher the Occupational Histories of Late-eighteenth Century Slave Quarters at Monticello?*

This poster shows how correspondence analysis can be combined with Bayesian spatial smoothing to resolve quadrat counts of ceramic classes into a few gradients. The data come from two adjacent sites at Monticello, occupied by slaves and overseers during the second half of the 18th century. Smoothed frequencies for each quadrat are obtained by combining observed values with a prior distribution based on its surrounding neighborhood using Bayes' theorem. The methods reveal that spatial patterns in ceramic frequencies at these sites are controlled by two factors: time and resource access. We highlight the links between our analysis and frequency seriation.

**Neivens, Nina** [12] *see Estrada Belli, Francisco*

**Neller, Angela (Wanapum Heritage Center)**

[33] *Back to Paradise: A Hawaiian Collection Finds Its Way Home*

Archaeological collections provide us with the best information about the past when they are managed and preserved, but what happens when these collections don't make it to the repository for care? They are left to deteriorate and become useless for providing valuable data. A case study of a Hawaiian collection, orphaned and soon to be homeless in California, is presented. These important systematic collections were saved through the efforts of individuals, a professional society, and a federal agency. The collection is now home in Hawaii where it can be preserved, managed, and accessible for future research.

**Nelson, Ben (Arizona State University)** [42] *Discussant*; [50] *see Elliott, Michelle*

**Nelson, Kit (Tulane University) and Alvaro Ruiz (Northern Illinois)**

[128] *Archaeological Survey of the Huaura Valley: New Methods and Exciting Finds*

Archaeological survey of the Huaura Valley of Peru has yielded new information concerning the occupation of the desert central coast. Using Trimble GPS backpack units, pocket PCs and other new survey techniques, hundreds of new sites have been identified and mapped. Among these are Preceramic sites and several Initial Period defensive sites that raise questions as to the extent of occupation and the defensive nature of the occupation of the valley. Survey results indicate there was more intensive occupation than previously thought, along with defensive occupations during certain periods in this borderland area. In addition, the success of new field techniques is discussed.

**Nelson, Margaret** [139] *see Anyon, Roger*

**Nelson, Russell (University of Wyoming)**

[125] *Human Remains from the Joint Mongolian-American Expedition*

The archaeological survey carried on by the Joint Mongolian-American Expedition has excavated numerous features, many of them human burials. Over the course of several years of work, archaeologists have recovered a sample of skeletal remains, giving us a glimpse of the human inhabitants of the regions covered by the survey. These individuals represent a temporal span from the Bronze Age to the Medieval, or Mongol period, and consist of both males and females, from youth to old age. This presentation will examine the demographics of this small but broadly representative sample, using supplemental information from published sites in the area.

**Nelson, Sarah** [29] *see Jackson, H. Edwin*

**Nelson, Susan (Dayton Society of Natural History)**

[10] *Hands-On Prairie Experience and Restoration at SunWatch Indian Village/Archaeological Park*

A native prairie restoration program at SunWatch Indian Village/Archaeological Park in Dayton, Ohio provides a "multi-sensory learning environment" for visitors to achieve a more complete understanding of the cultural ecology of the region, both prehistorically and today. The prairie education classes developed for K-post secondary students, funded by the Ohio EPA, address environmental issues including ecology, soil retention, and water filtration. Hands-on activities allow for the practical application of academic skills outlined by the Ohio Department of Education's Academic Content Standards in Liberal Sciences, Social Studies, Life Sciences, Science Inquiry, Earth and Science, and Math Competency.

**Nelson, Zachary (Penn State University)**

[147] *Metal Detecting in the First World Media*

Metal detecting enthusiasts continue to find artifacts of deep archaeological significance. Typical spots for metal detecting include Civil War battlefields, colonial ship wrecks, and even Roman sites. But are all such treasure hunters treated equally in the media? What are the pros and cons of "treasure hunting clubs" and their relationships with local (and international) archaeological projects? Should more attention be paid to this small, but growing section. of the populace? The treatment of metal detecting stories in the media parallels the actions that archaeologists should take to this invasion of their turf.

**Nelson, Zachary** [147] *see* Cole, Kelleigh

**Neme, Gustavo (CONICET-Museo de Historia Natural de San Rafael) and Adolfo Gil (CONICET-Museo de Historia Natural de San Rafael)**

[130] *Faunal Exploitation and Agricultural Transitions at the South American Agricultural Limit*  
Southern Mendoza Province (Argentina) constitutes the southernmost limit of Andean agriculture in South America. The analysis of archaeofaunal assemblages from different sites in this region show changing patterns in taxonomic diversity at the time domestic plant remains first appear. Prey diversity increases before the appearance of the first cultigens, and then it decrease after their arrival. Otherwise the Artiodactyla index show a big game focused hunting when the domestic plant were incorporated to the region. This changing pattern is concordant with both ethnographic observations and models generated by archaeological studies worldwide. Finally these results will be discuss within the regional archaeological record context including isotopic and macro botanic information.

**Neme, Gustavo** [156] *see* Shelnut, Nicole

**Netherly, Patricia J. (University of Kentucky)**

[18] *Pathways To Complexity: A Comparison of the North Coast of Peru and the Circum-Gulf of Guayaquil Region*

The transition from small, autonomous communities with economies based principally on horticulture and/or fishing to societies with larger populations, more complex sociopolitical and economic organization has been documented for both regions by Andean archaeologists. The theoretical implications of their data and the impact of theory on data recovery have received less attention. Examples from fieldwork in both areas will be presented to illustrate the inappropriate causal relations put forward and the real variety of social responses present in both regions.

**Neusius, Sarah (Indiana University of Pennsylvania)**

[147] *What's the Story? The Print Media's Coverage of Southwestern Pothunting*

The Northern Southwest is the location of thousands of highly visible archaeological resources, including many Ancestral Puebloan sites. These sites are on private, federal, state and local land, and have been the focus of much important archaeological work. They also have been the focus of intensive collecting and looting, some of which has technically been legal. In fact, pothunting has its own longstanding tradition in this area. This paper explores how popular print media have covered recent looting and collecting. How well are the values of professional archaeologists presented in this coverage? What lessons can archaeologists learn?

**Neuzil, Anna (University of Arizona/Center for Desert Archaeology)**

[69] *Classic Period Migration and Identity in the Safford and Aravaipa Areas of Southeastern Arizona*

Recent research in the Safford and Aravaipa areas of southeastern Arizona has revealed great



diversity in ceramics, site layout, and construction techniques of habitation sites dating to the Classic Period (A.D. 1200-1450). These areas were on the receiving end of migration from the Four Corners area in the late 13th century, and it suggested that the diversity seen in material culture suggests similar diversity in the populations that occupied these sites. Migrants to these areas appear to have intermingled and lived alongside indigenous populations, creating a new region-wide identity that mixed elements from both migrant and indigenous groups.

**Neves, Eduardo G. [43]** *see Petersen, James B.*

**Neves, Walter A. (University of São Paulo), Mark Hübbe (University of São Paulo) and Luis Piló (University of São Paulo)**

[7] *Late Paleoindian Human Skeletal Remains from Sumidouro Cave: Comparative Cranial Morphology and Implications for the Settlement of the New World*

Several studies carried out over the last 15 years by one of us (WN) have presented strong evidence that the cranial morphology of the first South Americans does not coincide with that predominating today among native Americans and Northeastern Asians, with important consequences for understanding the settlement of the Americas. In this work we present new evidence of the peculiar cranial morphology of the first South Americans, based on 23 recently dated late paleoindian skulls recovered by Peter Lund from Sumidouro Cave, Lagoa Santa region, Brazil, in 1843. We also reemphasize the Asiatic origins of the Paleoamerican cranial morphology.

**Newren, Marcia Truell [154]** *see Toll, H. Wolcott*

**Newsom, Lee A. [95]** *see Wallis, Neill J.*

**Nials, Fred [82]** *see Mabry, Jonathan*

**Nicholas, George P (Simon Fraser University-Secwepemc Institute)**

[107] *Archaeological Stewardship as Negotiated Practice*

Despite best intentions, stewardship is rarely the neutral presence it purports to be. In promoting the notion of caretaking archaeological sites "for the benefit of all people," archaeologists have often questioned the capability, values, and responsibilities of descendant peoples having differing opinions about the past. There are also potential contradictions within the SAA Principles of Archaeological Ethics between (2) Stewardship and (5) Intellectual Property. What attention to IPR highlights is the need for a more critical and pluralistic perspective on stewardship as a negotiated practice. There is a need for less archaeocentric stewardship, but it presumptuous to offer alternatives on behalf of descendant communities.

**Nicholas, George (Simon Fraser University, Secwepemc Institute) [39]** *Discussant; [61]*  
*Discussant*

**Nicholson, Christopher (Washington State University)**

[140] *Foraging, Small Prey and Cutmarks: Ethnoarchaeology and Central-Place Foraging Theory among the Ache of Paraguay*

This research examines the relationship between cutmark frequencies and resource distribution in an ethnoarchaeological assemblage created by Ache foragers. Data from foraging treks shows that cutmark frequencies closely track the amount of meat procured during daily hunts. When resources are depressed, high frequencies of cutmarked prey bones occur. As the encounter rates with prey increases, the NISP per person increases, while percentage of cutmarked bones decreases. These results have important implications for the interpretations of cutmark frequencies and applications of Central-Place Foraging Theory to zooarchaeological remains.

**Nicolay, Scott (Easter Island Foundation)**

[22] *The Grand Opening: A New Perspective on the Location of Pueblo Bonito in Chaco Canyon, New Mexico*

A re-examination of archaeological evidence from sites throughout the Southwest combined with ethnographic data from contemporary and historic Pueblo communities demonstrates close relationships between the locations of major architectural features and natural landmarks that may have served as emergence shrines. Recent studies of Spirit Bird Cave and other sites in southeastern Utah reveal previously unsuspected ways in which the Ancestral Puebloans of the Colorado Plateau, including the Bonito Phase Chacoans, related their most elaborate constructions to cosmologically significant features of the landscape. These data suggest a new paradigm for understanding the ideological basis of Southwestern settlement.

**Niemi, Karen (Panamerican Consultants, Inc.)**

[38] *From Immigrants to Owners: Consolidating Pre-Columbian Land Claims in Rivas, Nicaragua*  
 Along the Isthmus of Rivas, the shortest distance between Lake Nicaragua and the Pacific Ocean is a mere 15 kilometers, located just south of the modern town of the same name. This area was strategic for both oceanic and freshwater prehispanic interaction routes, in turn shaping political, economic, and technological developments and ultimately attracting Mesoamerican migrant groups who partially displaced existing populations. Archeological and ethnohistorical data point to the ideologic and religious concepts used to integrate post-migration societies and legitimate immigrants' claims to the region.

**Nikolova, Lolita (University of Utah)**

[133] *Mutual Interdependence between Social Complexity and Cultural Layering in the Balkan Neolithic*

One of the criteria for social complexity is the culture heterogeneity. A diachronic approach to some records such as village burials and anthropomorphic figurines gives us an opportunity for reconstruction of the dynamic, global and non-invertible nature of the early social complexity that was mutually interdependent with cultural layering in the Balkan Neolithic. In particular, the material culture demonstrates the life of prehistoric population was a system of social strategies for production and reproduction of social relationships within the household as the elementary social unit and other variable in size communities.

**Niquette, Charles (Cultural Resource Analysts, Inc.) [115] *Discussant***

**Nisengard, Jennifer E. (Los Alamos National Lab/U of Oklahoma), Gregory D. Lockard (University of New Mexico/Los Alamos National Laboratory) and Kari M. Schmidt (University of New Mexico/Los Alamos National Laboratory)**

[69] *Ancestral Puebloan Grid Gardens and Fieldhouses: Agricultural Intensification on the Pajarito Plateau, Northern New Mexico*

Relative to the preceding Coalition period (A.D. 1150-1325), the Classic period (A.D. 1325-1600) on the Pajarito Plateau is characterized by a substantial increase in the construction of agricultural features including fieldhouses, grid gardens, terraces, and check dams. The dramatic increase in the number of these features suggests an unprecedented intensification in agricultural production in the region. Our poster examines feature morphology and the material remains associated with fieldhouses and grid gardens located in three biotic zones on the Plateau (piñon-juniper woodland, ponderosa pine forest, and piñon-juniper/ponderosa transition) as they relate to evidence for agricultural intensification during the Classic period.

**Nishizawa, Hideyuki (Graduate Student at American University)**

[156] *An Interpretation of Recinto Concentrations in Cardonal, Northwestern Argentina*

An archaeological project that was conducted in May and June 2004 at the site Cardonal, located in the Valley of Cajón, northwestern Argentina, yielded valuable information to understand an indigenous way of life in the Andes during the Formative Period. One of the intriguing aspects at this newly excavated site can be pursued in the concentrations of recintos -- habitation/corral structures with stone walls. Geographical features of the site and distribution patterns of artifacts (e.g., ceramic shards, lithics, and mortars) suggest that those recinto concentrations might have been purposefully constructed to facilitate exchange activities among local communities.

**Niu, Hung-jen (Harvard University)**

[125] *Cultural Transformation of late Neolithic Inner Mongolia*

Excavations of Neolithic habitation sites and burials as well as Bronze Age burials have made it possible for archaeologists to establish local cultural history. Late Neolithic non-Longshan phase pottery vessels and burials have been overlooked largely because of the dominance of "regional filiations of cultural phases" approach. However, those non-Longshan materials are essential to the understanding of interactions among agro-pastoralist communities in the area. In this paper, shared stylistic similarities of late Neolithic cultures between south-central Inner Mongolia and northwestern China are discussed. It is suggested that cultural stasis of Neolithic Inner Mongolia was finally altered by the pastoralists.

**Nocerino, Eric [93] *see Fisher, Lynn; see Harris, Susan***

**Nokes, Randolph (Western Washington University)**

[101] *Mid-Holocene Terrestrial Animal Use in the Gulf of Georgia Region: A Case Study from the Ferndale Site (45-WH-34)*

Human subsistence in the Gulf of Georgia region changed considerably in resource focus during the mid-Holocene from generalized to increasingly marine. The Ferndale fauna elucidate terrestrial animal use during this transitional period on the lower Nooksack River in northwest Washington. The site yielded 5,703 mammal and avian remains representing at least 14 mammalian and 11 avian taxa. Bone surface modification and element representation indicate that deer and elk carcasses were transported from the field whole but appear to have been processed differently once at the settlement. Systematic breakage patterns suggest that beaver were processed for both meat and pelts.

**Norman, V. Garth (ARCON, Inc.)**

[63] *Mormon Historical Archaeology Past & Present: A Two-fold Phenomena of Historic Site Shrines and Book of Mormon Archaeology Interest*

To embrace the global archaeology within the Mormon Church, both the Church's historic sites program and the Church's long-standing archaeology pursuit of its foundational Book of Mormon scriptural history, must be considered. A study of contrasts is to be found between these two domains of Mormon historical archaeology. Significant differences also exist between the Church's handling of its historic sites investigations and sites within the CRM setting, which will be considered in the context of the author's recent contract excavation work at five sites with the Kirtland Ohio restoration project, in contrast with his many years of CRM consulting experience, and a decade working for BYU-NWAF in Mexico.

**North, Chris (SWCA Environmental Consultants) and Michael Foster (SWCA Environmental Consultants)**

[94] *Recent Research on Apache Occupation of East-Central Arizona*

Recent archaeological investigations of Apache sites below the Mogollon Rim are presented in this poster to summarize current knowledge of Western Apache occupation of east-central Arizona. The archaeological data are used to reconstruct pre-reservation era (A.D. 1500-1875) settlement patterns, subsistence strategies, material culture, and interaction networks.

**Novic, Juliana (University at Albany, SUNY) and Jerry Ek (University at Albany, SUNY)**

[50] *New Technology, Old Maps, Enhanced Possibilities: The Mesoamerican Archaeological Settlement Database Project*

The Mesoamerican Archaeological Settlement Database Project combines new spatial database technologies with existing data from nearly a century of Mesoamerican research. The objective of this project is the incorporation of published settlement maps into a single GIS database. While the initial stage of this project has focused on the Maya Lowlands, the ultimate goal is to incorporate the full geographical, temporal, and functional range of Mesoamerican settlement. There are three goals of this project: to encourage interaction between researchers working across Mesoamerica; to continue the development of GIS methods for archaeological applications; and to promote comparative settlement pattern research.

**Novinger, Sue [153]** see *Wurst, LouAnn*

**Novotny, Anna [129]** see *Ellison, Leigh Anne*; see *Rogoff, David*

**Novotny, Claire [129]** see *Richardson, Laura*

**Nystrom, Kenneth [99]** see *Buikstra, Jane*

**Obata, Hiroki (The Kumamoto University)**

[163] *Prehistoric Obsidian Sources and Utilization in the Kyushu Island, Japan*

About 30 obsidian sources are known in Kyushu Island that were exploited and utilized in prehistoric time. The source with the most abundant and best quality of obsidian as material of stone tools is the Koshidake Mountain in Imari City, Northwestern Kyushu. The Koshidakean obsidian began to be utilized 30,000 y.B.P. and spread widely around Kyushu Island about 9,000 y.B.P. Later beyond the inland region Koshidakean Obsidian were transported by the ship to the Ryukyu Islands and the southern coast area of the Korean Peninsula in the later half of Jomon Period. The geo-chemical analysis done recently have proved and emphasized this story more clearly and strongly.

**O'Brien, Michael (University of Missouri) [126] *Discussant***

**Ochoa D'Aynés, Sarahí (Universidad de Las Americas, Puebla)**

[69] *If Points Could Talk: Biface Technology at La Playa, Sonora*

Investigations at La Playa, Sonora have produced 358 projectile points and 193 bifaces and identified continuous use or occupation of site since the Paleoindian period. The majority of the point styles in the sample corresponds to the extensive Early Agricultural period component at the site and represents the largest collection of these styles in the Southwest. The use of raw material is compared between temporal periods to interpret the procurement strategy of the early La Playans over time. The analysis identifies that the lithic industry at the site was grounded in local procurement strategies. The assemblage is dominated by local cherts, identified as being preferentially selected within several cultural periods.

**Ochoa-Winemiller, Virginia (Auburn University)**

[152] *Places to Live: An Ethnoarchaeology of Modern Maya Houses in Yucatan, Mexico*

The purpose of this paper is to present the results obtained after the 2002 season of the Modern Maya Houses Project in the Yucatan Peninsula. Using a multidisciplinary approach, we attempt to integrate and evaluate the various mechanisms involved in the design and use of domestic places, test the validity of Wauchope's assumption of cultural continuity in Maya housing, and build an ethnoarchaeological model that can be tested by archaeologist at prehistoric settlements in the region. Data from four communities revealed both architectural and settlement variants. These variations along with the conditions responsible for them are the focus of this presentation.

**O'Connell, James (University of Utah)**

[1] *Behavioral Ecology and the Archaeology of the Arid West: Historical Overview*

Behavioral ecology has arguably had more impact on archaeological research in the arid western US than in any other part of the world. I offer a brief overview of its development in this region, beginning with investigations of foraging behavior on the western Plains and southern California coast in the early 1970s, and continuing through its recent application to topics as diverse as hunter-gatherer settlement patterns, the diffusion of agriculture, sexual selection as a determinant of prey choice, and the development of social hierarchies. Topics explored by other contributors to the symposium are foreshadowed.

**O'Connell, James (University of Utah) [126] *Discussant***

**Odess, Daniel (University of Alaska, Fairbanks) and Jeff Rasic (NPS, Gates of the Arctic)**

[106] *49KAT6 and the Late Pleistocene Prehistory of Alaska*

49KAT6, a single-component, Late Pleistocene archaeological site in interior Alaska has produced an assemblage of tools lost or abandoned early in their use-life. In contrast to most sites that produce broken or exhausted tools reflecting a narrow range of tasks, the collection appears to be a more or less complete lithic toolkit as it would have existed while in use. The diversity of the assemblage and the widely traded lithic raw material it includes raise questions about the validity of distinctions that have been drawn between several Late Pleistocene techno-complexes in this, the presumed gateway to the Americas.

**Odess, Daniel [9] *see Rasic, Jeff***

**Odorczyk, Diana [71] *see Jordan, James***

**Ogburn, Dennis (University of California, Berkeley)**

[66] *Re-use vs. Abandonment of Inca Sites and Infrastructure and the Transition to Spanish Rule in Southern Highland Ecuador*

Archaeological investigation of Inca provincial sites (administrative centers, military installations, etc.) and related infrastructure (roads, way stations, etc.) is essential to the analysis of Inca strategies of control over and exploitation of local populations and resources. By considering whether these sites and elements of infrastructure were re-used or abandoned during the early colonial period, we can likewise gain insights into how Spanish strategies of control corresponded with or differed from those of the Incas. This paper presents a case where archaeological data from the southern highlands of Ecuador reveal major shifts during the transition from Inca to Spanish rule.

**Oglesby, Sharonda [3] *see Chatman, Kelley***

**O'Hara, Michael [69] *see Edwards, Josh***

**Ohnerson, Michael (Arizona State University)**[13] *Aztec Imperial Boundary Dynamics at Cuertlaxtlan, Veracruz*

The Cuertlaxtlan province, at the eastern edge of the Aztec empire, provides an interesting case for examining Postclassic period sociopolitical boundary dynamics and their material implications. The provincial capital of Cuertlaxtlan (Cotaxtla) actively resisted imperial rule through a series of rebellions against the Aztecs, making it a locale of contested social and political identity. Archaeological survey and surface collection at Cotaxtla reveal Aztec imperial strategies for asserting and maintaining political identity that include transforming local architecture, economy, ideology, and ethnicity at Cotaxtla. Comparisons to other Postclassic frontiers underscore the flexibility in boundary maintenance strategies and their resultant material remains.

Ojeda, Bernardino [18] see Benfer, Jr, Robert A.

Oksanen, Eric [151] see Bousman, Britt

**O'Keeffe, Tadhg (University College Dublin)**[153] *Encounters and Discourses: Postcolonial Theory and the Global Catchment of Historical Archaeology*

The indebtedness of contemporary archaeological theory to the philosophies and techniques of literary theory is somewhat understated, but the engagement with postcolonialism can be understood as one manifestation of it. This is apparent in Historical Archaeology, the field of which takes European overseas expansion and its accompanying ideology of ownership of people and land to be its defining point of departure. In this paper I will explore how the trickle-down into the wider political sphere of postcolonial thinking has shaped Historical Archaeology as both political project and moral mission.

Oland, Maxine (Northwestern University) [41] *Discussant***O'Leary, Owen (University of Hawaii) and Terry Hunt (University of Hawaii)**[57] *Rapa Nui (Easter Island) Fishing: A Reexamination of the Faunal Evidence and a Case for Specialized Exploitation Post AD 1300*

The unique biogeographic and environmental conditions of Rapa Nui saw the prehistoric development of a unique set of strategies for marine exploitation. Based upon previous research and new faunal material from Vai Mata and Akahanga, contrasts between early and later assemblages suggest that the prehistoric Rapanui developed a specialized inshore fishing strategy focused on Labridae and Muraenidae after AD 1300. Similarity of later assemblages may indicate we have reliable and valid measures of marine subsistence strategies.

**Olsen, Sandra (Carnegie Museum of Natural History) and Deborah Harding (Carnegie Museum of Natural History)**[125] *Reconstructing Clothing and Fabric from Archaeological Evidence at Botai Sites, Kazakhstan*

The Copper Age Botai Culture of Kazakhstan is known for its horse-dominated economy, but other aspects of Botai lifeways are revealed through recent research. One avenue of research is fiber technology, preserved through pottery impressions. These impressions indicate that a twined cloth was made. Cordage impressions provide additional evidence for fiber spinning methods, suggesting a vegetal fiber, probably hemp, was used to make 2-ply S-twist cord. Horse phalanx female figurines are incised with geometric designs. Certain features on the figurines indicate the garment structure, while others reflect decorative elements. A complete hemp dress was made to replicate Botai women's clothing.

**Olsen, Steven (Family and Church History Department)**[63] *Archaeology at Mormon Historical Sites: An Institutional Perspective*

For the past half century, historical archaeology has been vital to the historic sites program of the Church of Jesus Christ of Latter-day Saints. Historical archaeology complements the contributions of other academic and professional disciplines - e.g., history, material culture, architecture, pedagogy - to assure restoration of the highest quality and accuracy. As with other 'applied' disciplines, however, this particular institutional use of archaeology is necessarily qualified by institutional values and resources. Therein lies the conflict that will be examined from an institutional perspective in this paper.

**O'Reilly, Dougald (HeritageWatch)**[144] *HeritageWatch Cambodia: Protecting the Past . . . Enriching the Future*

Cambodia is home to one of the world's greatest archaeological wonders, Angkor. Although the Angkor complex is well protected, many temples of contemporary age are prey to looters as are archaeological sites that predate the monuments of Cambodia. The situation has alarmed researchers in Cambodia and prompted the formation of an international Non-governmental organisation called HeritageWatch. HeritageWatch is committed to reducing the impact of looting in Cambodia through a series of projects. This paper outlines the threat to Cambodia's heritage resources and the projects that HeritageWatch has formulated to combat the problem.

**Orndorff, Richard [35]** *see Blair, Lynda*

**Orr, Heather (Western State College of Colorado)**[54] *Stone Balls and Staged Battles in Costa Rica*

Researchers have speculated on the link between the Precolumbian stone balls of Costa Rica and the ball games of Mesoamerica. This paper extends that consideration by drawing a relationship to the Mesoamerican handball complex in its form as a staged battle involving the use of handsized stone balls.

**Ort, Michael H. (Northern Arizona University) and Mark D. Elson (Desert Archaeology, Inc.)**[141] *Human Adaptation to Cinder Cone Volcano Eruptions in Southwestern North America*

Cinder cones are the most abundant terrestrial volcanic landform. Their environmental effects are less widespread than other types of eruptions, but they commonly occur as "new volcanoes" in areas where people live and farm, often producing locally catastrophic consequences. Analyses of three prehistoric and modern eruptions (Sunset Crater and Little Springs in Arizona, and Parícutin in Michoacán) show that choices made by affected groups resulted in different adaptive responses at each volcano. These choices were based upon a complex mix of variables, including the nature of the eruption and the surrounding environment, and the culture of the affected group.

**Ortega, Felipe**[6] *Hono among the Living: Little Known Aspects of a Visionary Archaeology*

My viewpoint as a recent consultant for Dick Ford's ongoing work helps to center his contributions in Anthropology and honor his efforts on behalf of indigenous communities. I first met Dick nearly ten years ago. Knocking at my door with a student in tow, he came to ask me if I knew anything about mica pottery or the Apaches. Fortunately I did. Here I reflect on my understanding of Dick Ford's Anthropological vision as seen through micaceous pottery and its production. This vision represents a movement away from classic archaeology to a more inclusive and respectful approach to living peoples.

**Ortman, Scott (Crow Canyon Archaeological Center)**[97] *Mapping out the World of the Lower Sand Canyon Community*

One of the clearest ways archaeologists can perceive the interplay of structure and agency in the formation of community identity is through the construction of ritual landscapes. All societies maintain origin narratives that explain what the world is and how it came to be. But it is not always straightforward to relate the idealized cosmologies of origin narratives to the real, empirical world. People must decide how to do this if they want to promote a particular place as the right place for their community. This paper presents a concrete example of this process from 13th century southwest Colorado.

**Ortman, Scott [104]** *see Merewether, Jamie*

**Orzack, Steven (Fresh Pond Research Institute) [80] *Discussant*****Osborn, Rebecca (University of Illinois-Chicago)**[70] *Strategies for Preceramic Burial Identification in the Norte Chico Region of Peru*

Recent Research in the Norte Chico region of coastal Peru has displayed a florescence of monumental construction during the Late Preceramic, circa 3000-1800 BC. Though more than 25 sites with monumental architecture exist within a four valley area; as yet, the cemeteries of the population involved in the mound construction have not yet been discovered. This poster will discuss the problems inherent in the identification of Preceramic burials, particularly focusing on the classification of burials in the Norte Chico region as Preceramic, and not merely A-ceramic.

**Osborn, Sannie Kenton (Presidio Trust)**

[114] *The Governor Spoke French: Communication, Commerce and Culture Contact in Early California*

When Russian government official Nikolai Rezanov visited the Presidio of San Francisco in 1806, he was pleased to find that the Spanish Governor of Alta California spoke French. Rezanov presented the Governor with documents in Spanish, financial transactions were conducted in piasters, weights of goods were reported in puds and pounds. Rezanov envied Spain's communication system, with a monthly courier and special messengers, as he received news twice a year. In 1824 Dmitry Zavalshin described Russian bakeries attached to the Presidio's outer walls and remodeling of his living quarters in the "European style." These and other accounts offer insights into culture contact among the various European outposts in colonial California.

**Osburn, Tiffany and Winston Hurst**

[52] *Ground-penetrating Radar (GPR) Evaluation of Surface Identification of Great Kivas Based on Recent Work in Comb Wash, UT*

During the University of Colorado summer field school in 2003, ground-penetrating radar (GPR) investigations were carried out on four features near the Comb Wash Great House that had been identified, based on surface expression, as likely great kivas. The results of these surveys are shown here. These sites were characterized by large subcircular depressions with masonry architectural rubble at the northern boundary of each depression. Based on the GPR survey results and limited testing at 42Sa24753 and 42Sa24625 I believe that none of the depressions surveyed represents a Great Kiva.

**Osgood, Susie (Boise National Forest)**

[36] *Partnerships in Pursuit of the Past: The Pon Yam Store Restoration*

In 1998, the Boise National Forest and Idaho City Historical Foundation formed a partnership to restore the Pon Yam Store to its original character as a nineteenth century Chinese merchant's shop, and adapt the building for use as a museum and research center. Under the auspices of the Rural Community Assistance Program, FS archaeologists and volunteers conducted test excavations on the property. This paper will explore how public archaeology is changing local attitudes towards historic preservation and heritage tourism in a small, conservative town that was once Idaho's largest gold camp.

**Ossa, Alanna (Arizona State University) and Destiny Crider (Arizona State University)**

[117] *The Eternal City, Exploring Civic Identity of Rome and Teotihuacan*

We explore cities as long-lasting socially significant entities through the comparison of Rome and Teotihuacan. During their zenith, they were both cosmopolitan territorial capitals. Rome's identification as an international capital far outlasted its original political and social configurations, its reinvention as a religious and political capital in centuries subsequent to its original collapse is well documented. In the absence of a historic record following the Teotihuacan collapse, research has relied on 16th century ethnohistories to reconstruct the role and importance of this city. Historic Rome provides a thought-provoking analogy of how Teotihuacan civic identity may have evolved through the centuries.

**Oster, Elizabeth (New Mexico State Historic Preservation Office) [90] Discussant****Otero, Linda (Ft. Mojave Tribe)**

[35] *A Native American Perspective on Archaeology*

Archaeologists look at the physical aspects of the past. This paper examines rock rings and other types of material culture not just as isolated features or archaeological sites, but as the remnants of our culture and an important link to our past.

**Otte, Marcel (Universite de Liege)**

[44] *Turkey in the Paleolithic Periods*

The Lower Paleolithic of Turkey is divided in two regions: the Western belongs to the Asiatic technologies (flakes), the Eastern is African (bifaces). The Middle Paleolithic goes through the Mid and Upper Pleistocene by a succession of lithic technologies, more and more specialized, to a full Levallois development. The Early Upper Paleolithic is Aurignacian on Central Plateau, and Ahmarian in the South-East. The Epipaleolithic (or Mesolithic) traditions are widely spread. They remain in the margins well after the Neolithic appearance on the plateau.

**Ousley, Stephen (Smithsonian Institution)**

[102] *Biological Anthropology in the Repatriation Osteology Laboratory, National Museum of Natural History, Smithsonian Institution*

Biological anthropology plays a crucial role in the repatriation process, and as part of a legal mandate, it is technically forensic anthropology. The repatriation process requires skeletal remains to be verified as human or not, and Native American or not, and if so, to be inventoried and documented to determine cultural affiliation. Both culturally and genetically determined traits can aid in assessing cultural affiliation. Information obtained from the remains furnish details about the way individuals lived, died, and were treated after death, which aid the affiliated tribe in deciding how remains are to be treated today.

**Ouzman, Sven (University of California, Berkeley)**

[79] *Academic, Indigenous and Political Aspects of Southern African Rock Art*

Southern Africa's present and past connects powerfully at rock-art sites. Archaeological investigation of these sites' 'original' meanings typically uses recorded ethnographies. But rock-art also has contemporary relevance to diverse, even contestatory indigenous groups. Social scientists must ally material culture analysis with the proficiencies of participant observer. Further, research is seldom free of post-colonial politics, making archaeologists interlocutors between academic integrity, social action, and the sedimentation of activities - especially storytelling - at rock-art sites. This scientific-indigenous-political approach transcends political correctness by creating a matrix of enabling and constraining data that represents better science. Three cross-cultural case studies demonstrate these entanglements.

**Owsley, Doug (Smithsonian), Richard L. Jantz (University of Tennessee), T. Hanihara (Saga Medical School) and Thomas W. Stafford, Jr. (Stafford Labs)**

[151] *Physical Anthropology of the Arch Lake Human Burial*

The Arch Lake human burial is located in New Mexico on the highest promontory on the south side of the now-dry Arch Lake basin near the Texas border. Its' geological context, evaluated when discovered, indicated considerable antiquity. In February 2000 an interdisciplinary team re-examined all aspects of the burial: osteology, geoarchaeology and chronology, associated artifacts, and AMS radiocarbon dating. This presentation features results of skeletal analysis, including comparison of cranial and dental measurements, and discrete traits to other ancient North American remains and to modern North Americans. Although Arch Lake is unique, it is morphologically most similar to Gordon Creek and Horn Shelter burials, which are closest to it geographically.

**Oyuela-Caycedo, Augusto (University of Florida)**

[43] *The Archaeological "Nature" of the Andean Tropical Cloud Forests*

This paper presents evidence of the nature of the selective processes that generate the diversified existence of the rain forest. Tropical cloud forests in the Andes are considered to be one of the major areas of plant diversity in contrast to lowland tropical rain forest. In this paper the case of the Upper Buritaca River drainage in the Sierra Nevada de Santa Marta (Colombia) is presented. This study area indicates that the "natural" forest that we see today is the product of human selection in the past. This major selective force took place between 600-1700 AD with the Tairona/Kaggaba. The data presented support this interpretation on the historical ecology of tropical cloud forests. Similar processes took place in all of the tropical cloud forests of the Andes, where complex societies modified in an irreversible form the structure of the forest.

**Pace, Brenda (Idaho National Laboratory), Gail Heath (Idaho National Laboratory) and Clark Scott (Idaho National Laboratory)**

[36] *Geophysical Investigations of Archaeological Resources in Idaho*

At the Idaho National Laboratory and other locations across southern Idaho, geophysical tools are being used to discover, map, and evaluate archaeological sites. A variety of settings are being explored to expand the library of geophysical signatures relevant to archaeology in the region. Current targets of interest include: prehistoric archaeological features in open areas as well as lava tube caves, historical structures and activity areas, and emigrant travel paths. We are employing standard geophysical equipment to characterize the signatures of these targets at representative archaeological sites with additional ground truthing efforts at an experimental site with known targets.



**Pacheco, Paul (SUNY Geneseo)**

[124] *The Cultural Connections of the Allegheny Iroquois: Evidence from Bockmier Point*

This paper discusses results of SUNY Geneseo research at the 12th century A.D. Bockmier Point Site, located along the Allegheny River. Settlement and subsistence evidence indicate a sedentary agricultural orientation for the site occupants. Stylistic ceramic evidence from the site, combined with comparative evidence from other similar proto-Iroquoian sites in the region, indicates a connection between the Allegheny region and Iroquoian populations in the Niagara Frontier, rather than to preceding Middle Woodland populations of the region. Together these data build support for acceptance of a controversial migration model to explain the origin of these agricultural populations in the region.

**Pagan, Glorimar (University at Buffalo)**

[38] *Caribbean Archaeology, Agency, Reinterpretations*

The vision of Saladoid groups as noble savages must be reinterpreted. The use of agency as a theoretical tool allows us to recognize the initiative of Caribbean prehistoric populations. This paper reinterprets Hacienda-Grande and Ostiones sites in Puerto Rico using agency theory. The objective was to integrate the prehistoric inhabitants of the Caribbean to the archaeological narrative as active beings who created a different culture from their South American antecessors. The utilization of agency results in a personal narrative that reflects life tensions and contradictions. Agency allows archaeological research to identify the different intra-Caribbean dynamics of power and economy.

**Paige, Peter (SWCA Environmental Consultants/University of California, Santa Barbara)**

[19] *Investigations into Middle Period Fishing Economy of Western Santa Cruz Island*

Several models have been proposed for the development of sociopolitical complexity during or just prior to the Transitional period of Chumash prehistory (AD 1150 - 1300). In each, it has been implied that the intensified exploitation of fish enabled island populations to sustain themselves during this period of documented climatic upheaval and resource depression. However, there has been little investigation of what made rapid intensification possible. This paper explores the relationship between subsistence intensification and innovations in fishing technology by focusing upon diachronic change in archaeological fish assemblages from Middle period sites found on the western coast of Santa Cruz Island.

**Palacios-Fest, Manuel [82] see Mabry, Jonathan****Panich, Lee [114] see Schneider, Tsim****Papagianni, Dimitra (University of Southampton)**

[44] *The Middle to Upper Palaeolithic Transition in Mediterranean Southeastern Europe*

Southeastern Europe, commonly considered as the most likely route of modern human migration into Europe, is a topographically diverse area. While some parts of it do lie on one or two theoretical routes to Europe, others lie slightly off of them or are cut off by mountainous terrain, creating potential cul-de-sacs. Against the largely mountainous hinterland, the coastal Mediterranean lowlands provided relatively productive land and ease of movement. This paper summarises the evidence for the late Mousterian and early Upper Palaeolithic in Greece and the southern Adriatic.

**Pardoe, Colin (Bio-Anthropology and Archaeology)**

[165] *Biological Anthropology and the History of Repatriation in Australia*

This presentation will summarize the history of repatriation in Australia, including views on research and the destruction of biological anthropology as applied within archaeology.

**Parenti, Fabio (Istituto Italiano di Paleontologia Umana) and Niéde Guidon (Fundação Museu do Homem Americano)**

[30] *New Issues on the Peopling of Northeastern Brazil: A Glance at First South-Americans*

Recent data are available from the São Raimundo Nonato region, northeastern Brazil. The lowest layer of Pedra Furada rock-shelter has been re-dated with ABOX-SC technique, pointing that the first settlement is older than 56 ky BP. Moreover, microwear analysis of stone tools of the same unit confirm their human origin. Human fossilized remains from Garrincho cave date back to the XIIIth millennium BP, and dates older than 33 ky have been obtained for rock-art, both from Bastiana and Montalvania sites. New evidence about the relationship between humans and megafauna is available in several sites. On this background, main hypotheses about the origins of South Americans are discussed.

**Parr, Robert (Center for Archaeological Research) and Robert Yohe (California State University)**

[46] *The Effects of High Temperatures on the Identification of Protein Residues: Preliminary Results of Experiments using Counter-immunoelectrophoresis (CIEP)*

Visible residues are frequently found in prehistoric ceramic cooking vessels or interior pottery sherds, many seemingly thermally altered. Such residues are apt candidates for residue studies of various types, including analyses focusing on lipids, waxes, carbohydrates, and proteins. Given the low percentage of positive results for identifiable proteins using counter-immunoelectrophoresis (CIEP) on ceramic residues, an experiment was designed to test the viability of immunoproteins following exposure to temperatures at and above 100°C. This paper reports on the results of this study, which suggest that the detection of any protein that has been exposed to high temperatures using CIEP will be severely compromised.

**Parrish, Otis O. [107]** *see Dowdall, Katherine M*

**Parsons, Jeffrey (University of Michigan)**

[29] *Dick Ford as Friend, Colleague, and Mentor: 1963-Present*

I occasionally wonder how I might have fared as an anthropological archaeologist if I had not had the very good fortune to cross paths with Dick Ford at a very early stage in my career. We overlapped as graduate students at Michigan from 1963-1965, and as faculty colleagues at Michigan after 1969. Although we have worked in different geographic areas, and focused on somewhat different specialized research problems, our many shared interests and concerns have provided a lot of common ground for interaction over the decades. In this presentation, I reflect on some of the highlights of this long association.

**Parsons, Jeffrey (University of Michigan) [149]** *Discussant*

**Parsons, Timothy (Blue Ridge Center for Environmental Stewardship)**

[3] *The Loudoun Valley Historic Archaeology and Ecology Project: The Incorporation of Archaeology into Ecological Conservation Strategies*

A challenge affecting the actions of preservation groups, non-profit organizations, environmental preserves, and organizations rich in cultural resources is the incorporation of archaeology into broader conservation strategies. For five years, the Blue Ridge Center for Environmental Stewardship has worked toward implementation of an effective archaeological research program to interpret the cultural landscape by participating in the Loudoun Valley Historic Archaeology and Ecology Project, a multi-disciplinary cultural and ecological research program. By engaging parallel, synergistic research strategies, the Blue Ridge Center has helped develop a cohesive study model and hopes to encourage others to incorporate archaeology into environmental and resource conservation.

**Patten, Bob (Stone Dagger Publications)**

[150] *Parsing Folsom Rock*

Starting with a typical size of nodule quarried by Folsom people, the lowest number of flakes that can be produced from a rock, and match archaeological sampling, is calculated to be 51. Percussion knapping of a biface produces about 50 flakes. Reported artifact inventories from excavated sites produce similar estimates. The correspondence of solutions suggests that it is possible to account for virtually all flakes, as stone was moved from quarry to deposition site. Improved data collection and reporting strategies should help us resolve whether Folsom people utilized their lithic resources steadily, or in intensive gearing-up sessions.

**Patterson, Thomas (University of California, Riverside)**

[153] *The Turn to Agency: Neoliberalism, Individuality, and Subjectivity in Late Twentieth-Century Anglophone Archaeology*

This paper examines the turn to agency theory in the 1980s and its relation to the formulation and implementation of neoliberal policies in the mid-1970s and the concomitant rise of postmodernist perspectives on individuality and subjectivity. The adoption of agency theory involved the rejection of popular functionalist and structuralist perspectives that gave priority to the object (culture or society) over the subject, viewed individuals as the passive bearers of structures, and overlooked the free will and knowledgeability of actors. It also underwrote renewed interest in the issues of power and power relations.

**Patterson, Thomas (University of California, Riverside) [20]** *Discussant*

**Pauketat, Timothy (University of Illinois) [97]** *Discussant*

**Paul, Shajan K. [14]** *see Abraham, Shinu*

**Paulino, Erika [128]** *see Huaman, Luis*

**Pavao-Zuckerman, Barnet (University of Arizona)**

[161] *Adoption of Animal Husbandry at Pimeria Alta Missions*

Documentary evidence from the Southwest indicates that Spanish missionaries attempted to alter the subsistence base of southwestern native peoples through the introduction of Eurasian domestic animals. Our understanding of the degree to which this strategy was successful is hindered by a dearth of zooarchaeological evidence. Excavations in southern Arizona at the 18th-century mission San Jose de Tumacecori and the late 18th-century mission San Agustin del Tucson, provide an opportunity to examine southwestern Native American subsistence during the early colonial period in the Pimeria Alta. Zooarchaeological analysis suggests that efforts to encourage animal husbandry among missionized Native Americans were more successful than in other colonial regions.

**Pavrides, Christina (University of Oxford)**

[43] *Tropical Farmers: 35,000 Years in the Lowland Rainforests of West New Britain, Papua New Guinea*

The lowland tropical rainforest of West New Britain were entered and colonised more than 35,000 years ago. From this time onward the rainforest dwellers harnessed and utilised important inland resources and locales. By looking closely at the organisation of flaked stone technologies during the Pleistocene and Holocene it becomes apparent that this rainforest society was radically transformed between 10,000 and 3,600 years ago. Furthermore, the main elements of social and economic organisation usually associated with later agricultural settlers within the region were already in place in the rainforest by at least 4000 years ago. Using evidence from flaked stone both the configuration and direction of social change within Papua New Guinea's dynamic rainforest will be explored.

**Pearl, Frederic (Texas A&M University, Galveston)**

[57] *Results of an Investigation of Ridge-top Residential Sites in American Samoa*

In 2004, archaeologists from Texas A&M University undertook a single-season exploration of mountain residential sites in American Samoa, in order to determine their age. Three large abandoned mountain residential sites were selected for inclusion in the study. Seven radiocarbon dates were obtained, four of which ostensibly date the period of initial construction of the settlements. A chi-square of these reveals that they are statistically identical at the 95% confidence interval. The pooled mean conventional age is 680±20 B.P. When calibrated, this suggests that mountain settlement began in Tutuila between 1270-1310 A.D., possibly representing a major shift in settlement patterns.

**Pearson, Georges (University of Kansas) and Richard Cooke (Smithsonian Tropical Research Institute)**

[7] *Cueva de los Vampiros: New data on Late Glacial and Early Holocene Human Activities in Panama*

Archaeologists have had a difficult time finding stratified evidence for late glacial and early Holocene human activities in Central America although some large and important (surface) Paleoindian quarry-workshops are known (e.g., Turrialba, La Mula-Sarigua and Sitio Nieto). I report here on new finds at Vampire Cave on the central Pacific coast of Panama where fluted points and other tools characteristic of the late glacial have recently been found in situ. I discuss these finds in the light of the changing environment of Central America and recent debates about the nature and timing of human migrations through the isthmus.

**Pechenkina, Ekaterina [18]** *see Farnum, Julie*

**Peoples, Matthew [69]** *see Kelly, Sophia*

**Pemberton, Kevin (Southern Methodist University) and Heather McKillop (Louisiana State University)**

[108] *Models for Ancient Maya Site Development and Economy at Pork and Doughboy Point, Port Honduras, Belize*

The first land-based excavations at Pork and Doughboy Point were designed to investigate the

role of the settlement in the economy of southern Belize and the greater Maya region. In this paper, we describe the recent stratigraphic excavations and artifact analyses, principally of ceramics, in order to evaluate proposed economic models. Like the inland cities of southern Belize, Pork and Doughboy thrived in the Late Classic but was abandoned during the Terminal Classic. The implications of the site's settlement history, specialized production, and coastal-inland economic relations are discussed.

**Pemberton, Kevin [108]** *see McKillop, Heather*

**Pendegraft, Signa (University of Reno, Nevada)**

[137] *Ground Stone and Pecked Rock: Results of the High Basins Archaeological Analysis, Washoe County, Nevada*

The archaeological context of the High Basins, Pah Rah Range, is analyzed. Likely exploitation of the area's resources was by seasonal task groups beginning in early Spring focusing on plant resources. This correlation is found in other western and northern Great Basin areas. House rings and grinding equipment preside in the area, along with a generalized lithic tool kit, thus task groups included women and children. The petroglyphs are archaeological features strongly associated with the house rings and some concentrated milling areas. The seasonal upland field camps comprise part of the marsh and upland exploitation prevalent in the Great Basin.

**Penny, Dan (University of Sydney)**

[144] *Palaeo-vegetation Records of the Decline of Angkor*

Palynological analysis of sediment cores from temple moats and reservoirs at Angkor provides a unique record of land use change relevant to the debate surrounding Angkor's demise and eventual abandonment. In particular, the attenuation of agricultural land use and the re-growth of secondary forest on previously cleared land is both visible in palynological records and datable absolutely. This paper presents data from several sites throughout Angkor, and discusses implications for the historiography of Angkor's final centuries.

**Penny, Dan [144]** *see Bishop, Paul*

**Perales, Manuel (Proyecto Arqueologico Norte Chico (PANC)) and Jonathan Haas (Field Museum)**

[128] *Toward an Understanding of Late Archaic Architectural Complexes in the Norte Chico Region of Peru: Excavations at Caballote, Fortaleza Valley*

Excavations were carried on at Caballote, a major Late Archaic (ca. 3000-1800 Cal B.C.) residential and ceremonial center in the Fortaleza valley in the Norte Chico region of Peru. This work shows major differences in the intensity and nature of occupation of different parts of the site. The open area in the center of the site has evidence of limited occupation with little trash. In contrast, there are signs of intensive occupation adjacent to the main mounds. Excavations in these areas show deep trash deposits rich in organic remains as well as buried buildings and cane structures.

**Perales, Manuel [70]** *see Craig, Nathan*

**Perdikaris, Sophia (Hunter College CUNY) and Thomas McGovern (Brooklyn College CUNY)**

[119] *King Alfred, King Canute, and the Codfish*

Zooarchaeology and isotopic signatures of human bones from Britain, Norway, and Iceland strongly indicate that between AD 850 and 1100 a revolution took place in the commercial ecology of cod fishing and dried fish production. Scandinavian fishers and elites dating back to the Iron Age had developed a production strategy and a distribution network which was taken into the N Atlantic after AD 800. Inland sites in 9th -10th c Iceland and human isotopic signatures demonstrate the importance of this pre-Hanseatic, chiefly fish trade among Viking Age settlers. Contemporary Pictish, Anglian, and Hebridean populations did not possess a comparable tradition, and consumption of preserved inland fish and a fully commercial fish trade begins only after significant Scandinavian settlement and political dominance of much of Britain. This new inter-regional synthesis demonstrates that the Historical Ecology of N Atlantic fishing is a product of the Viking age.

**Perez Arias, Adolfo [49]** *see Fox, Jake*

**Perez Arias, Maribel [49]** *see Fox, Jake*

**Perkins, Tracy [22]** *see* Plimpton, Christine

**Perkl, Brad (USACE, St. Paul District)**

[5] *Upper Mississippi River Archaeology: Navigation Pools 1-10*

Environmental diversity and cultural history of the Upper Mississippi River are highlighted. A variety of USACE, St. Paul District sponsored cultural resources investigations throughout Navigation Pools 1-10 are presented. Themes include cultural resources management issues, recent research and public education.

**Perry, Elizabeth (SWCA)**

[97] *The Construction of Gender Identity in Prehispanic Pueblo Communities*

This paper proposes that identity - the product of gender construction - results from the structured performance of labor activities in prehispanic Pueblo communities. Osteological reconstructions of sexually differentiated activity patterns are used to examine the interaction between sex and gender and the role of embodiment in the formation of identity. Gender identity is constructed through daily practice in the habitual embodied performances that occur continuously within the context of a Pueblo community. The dissonance created through these social processes inevitably produces bodies that fail to achieve the performative ideal; such cases are brought into focus through this study.

**Perry, Jennifer (Pomona College)**

[19] *The Influence of Environmental Variability on the Nature of and Responses to Population-resource Imbalances on the California Islands*

How responses to population-resource imbalances influenced subsequent settlement and subsistence as well as socioeconomic and political organization has been of considerable interest to researchers on the California Islands. The nature and specific roles of such episodes have been debated vigorously using a variety of paleoenvironmental and archaeological data. However, what has not been considered fully is how environmental variability shaped the particular manifestations of climatic events. Citing data from multiple California Islands, I focus on long-term drought, proposing that responses may have varied from abandonment to circumscription and intensified exchange depending on island-specific environmental and demographic factors.

**Perry, Lauren (Bureau of Reclamation), Mark Slaughter (Bureau of Reclamation), Pat Hicks (Bureau of Reclamation) and Renee Kolvet (Bureau of Reclamation)**

[94] *Line in the Desert: Archaeology of the Lower Colorado River Margin*

The Colorado River was, and is, a defining geographical boundary that provided the most reliable source of water in an arid land. Prehistoric and historic groups living along the rivers margin developed unique adaptations that incorporated mixed subsistence economies with seasonal mobility strategies. This poster examines both prehistoric and historic Native American use of 'America's Nile' and critically examines the direction of future research.

**Perry, Megan (East Carolina University)**

[24] *Examining Gender-Based Funding Inequity in the Near East*

A recent SAA-COSWA survey discovered many women in archaeology perceived gender-based bias in funding opportunities. Survey results also showed that archaeologists from outside of North, Central, and South America did not identify unequal funding opportunities for women as a problem. In order to further explore this discrepancy, archaeologists working in Jordan (both Jordanian and non-Jordanian) were asked their stories about procuring funding for education and research in a traditionally male-dominated context, and whether they felt men received preferential treatment for funding. These results are compared with those from the SAA survey to put this issue in a global perspective.

**Persons, Brooke [143]** *see* Dumas, Ashley

**Petersen, James B. (University of Vermont), Eduardo G. Neves (University of Sao Paulo) and William I. Woods (University of Kansas)**

[43] *Tropical Archaeology in the Central Amazon: Socio-Political Complexity and Landscape Transformation*

Research of the Central Amazon Project (CAP), situated near the confluence of the Negro and Solimoes rivers in Brazil, has been ongoing since 1995. The CAP research documents extensive evidence of Ceramic-Age occupations at more than 60 archaeological sites and Preceramic

occupation at 10 others. Based on 75 radiocarbon dates, we can demonstrate that socio-political complexity emerged regionally by at least the first millennium A.D. Notable landscape transformation also occurred by this time, with numerous examples of "Amazonian Dark Earth," or terra preta, marking widespread evidence. This paper outlines resultant implications for, Amazonian prehistory and broader tropical forest archaeology.

**Peterson, Christian E. (University of Pittsburgh) and Gwen P. Bennett (Washington University)**

[55] *"Crafting" Hongshan Communities: Economic Specialization and Social Differentiation at Fushanzhuang*

All societies contain individuals who seek to elevate themselves and dominate others. These 'aggrandizers' attain prominence and power through inducing and expropriating others' productive surpluses, converting them through various means into social prestige. Specific households may increase their status within their communities to the extent that ambitious members can mobilize goods and labor towards this end. A commonly suggested strategy of accumulation is productive specialization. Variability in surface artifact assemblages is used to evaluate the importance of different economic pursuits to interhousehold social differentiation and the emergence of the earliest social hierarchies in the Chifeng region of eastern Inner Mongolia.

**Peterson, Polly (Boston University)**

[112] *Caves and Settlement in the Sibun Valley*

The close relationship of the ancient Maya of the Sibun Valley of Central Belize to caves is documented by artifact deposition in these features. The relationship between caves and settlement, however, is always mediated by local geomorphological conditions. The settled alluvial plain is distinct from areas of uninhabited steep-sided cone karst where caves are located. Cave utilization thus appears to be analogous to the Maya highlands where caves and settlements are physically separated by the mountainous terrain. This paper will explore the role of geology in determining strategies of utilization and appropriation of particular sacred sites.

**Pettegrew, David [100]** see *Nakassis, Dimitri*

**Pettus, Will [3]** see *Bates, Brian*

**Peuramaki-Brown, Meaghan (University College London)**

[91] *The Chaîne Opératoire of Ceramic Manufacture and Production: Preliminary Analyses Through Ceramic Petrography at Rancho Del Rio, Valle De Cacaulapa, Santa Barbara, Honduras*  
During the summer of 2004, preliminary petrographic analysis was conducted on ceramic samples from the site of Rancho del Rio, in the Valle de Cacaulapa in northwest Honduras. Analysis involved three stages: 1) preliminary thin section petrography as a means of adding microscopic data sets to the current type-variety-mode typology used in the valley in order to begin investigations of the chaîne opératoire of ceramic manufacture, and eventually production at the site; 2) comparison of identified petrofabrics with clay "globules" found on potstands from the site; and 3) an attempt to locate the actual source and/or environment of the clays used in vessel manufacture.

**Pevny, Charlotte (Texas A&M University), Ashley Smallwood (Texas A&M University), Jim Wiederhold (Texas A&M University) and Bill Dickens (Texas A&M University)**

[69] *Standardization of Analytical Techniques for Microscopic Usewear Analysis: Distinguishing Between Post-depositional Processes and Cultural Modifications*

Even after decades of use-wear research, there is still a critical need to establish consistent analytical techniques for microscopic usewear analysis. We have conducted a series of experiments designed to identify post-depositional processes and to distinguish them from cultural processes. Specifically, to recognize the signatures produced by post-depositional processes that obscure the identification of cultural processes at the microscopic level (i.e., trampling and colluvial processes). Only by conducting these experiments and eliminating "background noise" can we accurately draw meaningful conclusions regarding artifact use, in this case, with regard to the Clovis component at the Gault site in central Texas.

**Phillips, Ann (University of Colorado Museum of Natural History)**

[79] *Flute Players and the Sand Island Petroglyph Panel*

Positioned high on the Sand Island Petroglyph Panel on the San Juan River near Bluff, Utah, are a number of highly visible and exquisitely executed rock art motifs including flute players and bighorn sheep. The hundreds of images on the panel range from the Archaic Period through the

early Basketmaker and the ancestral Puebloan Periods, and into the Historic Period. Members of the Flute Clan from First Mesa, Hopi have identified images on the panel as a record of their clan migrations. Further insight into interpretation of the panel is gained from the ethnographic and archaeological record.

**Phillips, David** [15] *see* *Ballagh, Jean*

**Phillips, Shaun (Michigan State University)**

[118] *Statistical Modeling of Native American Longhouses*

Interpreting post mold patterns at the intra-site level is often left to the individual archaeologist, relying on purely subjective appearance. While this may be appropriate in clear-cut cases, many examples exist where a pattern cannot be seen or the pattern that is seen is not attributable to a structure. Spatial statistics provide a set of tools to formally address these problems. A variety of statistics, including Ripley's K, were used to model longhouse post mold patterns and develop a statistical signature library for comparisons to unknown cases. Results showed that longhouses have a regular spatial signature that can be modeled.

**Picha, Paul (State Historical Society of North Dakota)**

[17] *Winds of the Upper Missouri: Frances Densmore, Ethnomusicology, and Culture History among the Mandan and Hidatsa Indians*

Frances Densmore's investigations of musical traditions among the Mandans and Hidatsas remain vital some eighty years after their publication. Charles Hofmann's (1968) memorial volume provides a glimpse of the relations among music, material culture, and culture history. A reexamination of Densmore's work reveals that Mandan and Hidatsa music comprises an array of social and ceremonial features that were later expanded by Alfred Bowers in his classic volumes. Two examples drawn from Mandan and Hidatsa songs serve to clarify Densmore's contributions to method and theory in culture history.

**Pigott, Vincent (Institute of Archaeology, University of London)** [42] *Discussant*; [144] *see* *Voelker, Judy*

**Pike, Meta G. (University of Tennessee), Kandace D. Hollenbach (UNC-Chapel Hill) and Lara K. Homsey (US Army Environmental Center)**

[95] *Changing Patterns in Plant Use and Processing Technologies at Dust Cave, Alabama*

Ranging from large hearths to small charcoal pits, the features at Dust Cave are in-situ representations of the occupants' activities. We examine these activities through feature function, using a combination of geochemical, micromorphological, and archaeobotanical analyses. Our data suggest that while the Late Paleoindian and Early Archaic occupations are similar, significant changes occurred between the Early and Middle Archaic, including new feature types, greater feature diversity, increased nutshell, and increased occupation intensity. These changes may be associated with a focus on hickory nut processing, which led to more intensive occupation and repeated use of Dust Cave as a special-purpose site.

**Piló, Luis** [7] *see* *Neves, Walter A.*

**Pino, Michelle (Kenyon College), Nicole Burkhardt (Independent Scholar), Jocelyn Anthony (Kenyon College) and Mary Hostenske (Kenyon College)**

[129] *Changing Spaces: Platform Re-Use and Reconfiguration at Las Canoas, Northwestern Honduras*

Buildings are sensitive, malleable correlates of the organization of social groups, political relationships, and economic activities. As social configurations change, new settings to accommodate them are created. At the Classic period (A.D. 600-800) center of Las Canoas, changes in architectural form suggest shifts in the intensity and distribution of ceramic production activities and a re-structuring of residential patterns through time. Marked changes include the expansion and re-orientation of buildings and the construction of surface-level rectangular rooms adjacent to multi-room, platform-based structures. These modifications suggest a significant re-organization of the use of space, residence patterns, and possibly even social structure.

**Pino, Peter (Governor, Pueblo of Zia)** [34] *Discussant*

**Pintar, Elizabeth (Austin Community College)**[156] *Working Hands: Prehistoric Women of the Salt Puna*

The role of women in a hunter-gatherer society that was undergoing internal reorganization at a time of increased unpredictability in the local environment is discussed. The appearance of artifacts and features at mid-Holocene sites in NW Argentina suggest the archaeological visibility of women's tasks. Scrapers manufactured on large flakes obtained by a different provisioning strategy than other stone tools, cactus needles used for sewing, plant and animal fiber spun into yarn, basketry, grinding stones, and stone parapets used for communal hunts reveal a greater participation of women in craft production and subsistence tasks than was previously thought.

**Pinto, Ana (Institute of Human Origins), Geoffrey Clark (Department of Anthropology, ASU), Alex Miller (Department of Anthropology, ASU) and Kaye Reed (Department of Anthropology, ASU)**[44] *Neanderthals and Cro-Magnons in Northern Spain: Ongoing Work at the Sopeña Rock-shelter*

The Iberian Peninsula is controversial because of the very early dates published for the Early Upper Palaeolithic of northern Spain (~ 40 Ky) along with the late dates obtained for purely Mousterian sites with Neanderthal remains (~24Ky). This debate is centered in a small series of palaeolithic sites, most of these excavated early last century. Sopeña is a new archaeological site, where excavation began in 2002. A test excavation showed at least 16 archaeological levels ranging from the Gravettian to the Mousterian.

**Piperno, Dolores [149] see Voorhies, Barbara****Pitblado, Bonnie (Utah State University)**[151] *Making a Mountain of a Molehill? The Paleoindian-Archaic Transition in the Southern Rocky Mountains*

As the abstract for this symposium conveys, the transition from the Paleoindian to Archaic era is commonly perceived as a major cultural shift set in motion at least partially by climatic change. But that shift varied significantly depending on regional variables. The issue I address is whether that shift was, in fact, a truly "major" event in the Southern Rocky Mountains, an environment capable of buffering climatic change through shifts in ecological zone boundaries. Specifically, I address whether the archaeological records of late Paleoindian versus Archaic sites in the Southern Rockies do differ from each other, and if so, how.

**Planella, M. Teresa [49] see Tykot, Robert****Planke, Terje (University of Oslo)**[45] *Methods of Reconstructing Craftsmanship, Objects and Intentions*

In the Gokstad-boat project at the Viking-ship museum/ University of Oslo, our goal is to reconstruct not only the form itself but also the structure and the procedures of the craft. By reconstructing the boat - in full size - twice, we are moving power towards the boat builder as an interpreting subject making subjective choices. How might we then grasp the intentions of the craftsmen that worked 1000 years ago? We are leaning on local boat building traditions we have documented and identify important changes in the perspectives. Gadamer's concepts of Gesamtkonzeption and Wirkungsgeschichte makes an important point of departure.

**Plescia, Sara (Northern Arizona University)**[49] *Fields, Yields, and Foods: Analysis of Botanical Remains from the El Brujo Site Complex, North Coast Peru*

El Brujo, a multi-component site situated on North Coast Peru, remains one of the most spectacular archaeological sites in the New World. The incredible preservation factors yield a rich inventory of desiccated plant remains. Recent excavations of Late Horizon Chimu-Inca households at El Brujo have revealed changes in diet as compared to previous prehistoric cultures. Paleoethnobotanical analysis of food remains indicates an abundance of wild plants and cultivated foods such as maize. The highly varied diet of the Chimu-Inca people living at El Brujo suggests a different access to food as a direct result of influence from the dominating Inca culture.

**Plimpton, Christine (PCC) and Tracy Perkins (PCC)**[22] *Syntactic Analysis of Space Use Based on Women's Activities in Anasazi Prehistory*

Syntactic analysis is a method that elucidates the cognitive perceptions of a group. It is especially



useful for identifying aspects of change in a culture. Between AD 700-1100, the Anasazi developed sedentary villages which resulted in changes in social organization, specialization in social roles, and the use of space. This paper uses syntactic analysis to compare the spatial configuration of meal facilities within specialized meal rooms, habitation dwelling units and integrative pit structures to indicate changes in women's labor patterns.

**Plog, Stephen (University of Virginia)**

[29] *Protohistoric Western Pueblo Exchange: Barter, Gift, and Violence Revisited*

Although many studies over the last few decades have demonstrated that the movement of a variety of products among pueblos was commonplace in the protohistoric Western Pueblo world, our current understanding of that interaction often fails to acknowledge the complexity of social, political, and ritual relations that underlie exchange relations. Using Ford's classic description of barter, gift, and violence in protohistoric Eastern Pueblo societies, I reexamine our current understanding of protohistoric Western Pueblo exchange.

**Plunket, Patricia (Universidad de las Americas), Gabriela Uruñuela (Universidad de las Americas) and Hector Neff (California State University, Long Beach)**

[50] *Late Formative Thin Orange Ceramics from Tetimpa, Puebla: Antecedents to a Classic Period Commodity*

Vessels manufactured from pastes that fall within the range of chemical variation of Classic period Thin Orange occur in low frequencies in the Late Formative burials at Tetimpa, Puebla. Since the distance between Tetimpa and the source region in southern Puebla is almost 100 kms, this ware formed part of certain long-distance exchange networks prior to the rise of the Teotihuacan state and the concomitant expansion of trade during the Classic. We describe the physical characteristics of the Late Formative Thin Orange and discuss the significance of its inclusion in the mortuary program at Tetimpa.

**Plunket, Patricia [149] see Uruñuela, Gabriela**

**Podestá, Mercedes [156] see Scheinsohn, Vivian**

**Poe, William [108] see Hayes, Sue**

**Poetschat, Cathy (Council of Affiliated Societies), George Poetschat (Oregon Archaeological Society), James Keyser (USDA Forest Service) and Alison Stenger (Institute for Archaeological Studies)**

[127] *Volunteer Contributions to Archaeology by the Oregon Archaeological Society (OAS)*

Most volunteers think of themselves as "receiving" instead of "contributing" to archaeology. But OAS volunteers have made many contributions to archaeology these last 10 years, with the assistance and guidance of archaeologists. These include: Friends of the Passport in Time Program, committee work on Oregon Archaeology Month; producing publications; forming a Stewardship program; organizing international symposia on Rock Art; developing a program to train volunteers for archaeological work; helping to form another archaeological society in Oregon; sponsoring educational presentations; organizing/ participating in field/ laboratory work and reporting; and presenting papers at professional meetings.

**Poetschat, George (Oregon Archaeological Society), James Keyser (U.S. Forest Service) and Terence Fifield (U.S. Forest Service)**

[137] *Preliminary Report on Kosciusko Island Alaskan Rock Art*

The 2002 and 2004 Kosciusko Island Rock Art Projects led to the recording of three petroglyph sites. Local Tlingit tribal members, US Forest Service archaeologists, and volunteers recorded Northwest Coast Basic and Classic Conventionalized design motifs. While the stylistic simplicity of most images suggests they were created by nonspecialists seeking supernatural contact, others were probably made by shamans in their efforts to affect the everyday and supernatural worlds. More complex images, such as the bear copper and the therianthrope birdman, may have been carved by master artists commissioned by chiefs to designate clan or tribal ownership of an area.

**Poetschat, George [127] see Poetschat, Cathy**

**Polanich, Judith (California State Parks)**

[111] *Crossing the Western Boundary: Prehistoric Textiles in California*

California perishables are of continuing interest to scholars of social change in the Southwest and

Great Basin. Trade and migration westward into California is often postulated, sometimes on the basis of culturally sensitive perishable technologies, both prehistoric and historic. Although archaeological remains are scanty, poorly reported, and misunderstood in comparison to the myriad ethnographic collections, California prehistoric textiles are exciting in both their variety and potential explanatory power. In this paper, I review the limits of preservation, analysis, and interpretation of perishable technologies in California and provide an overview of these textiles in collections around the state.

**Politis, Gustavo (CONICET-UNICEN)**

[140] *Discard Patterns among the Hoti from the Venezuelan Guiana*

This paper presents the preliminary results of the ethnoarchaeological research among the Hoti, which has a foraging mode of life, complemented with a small scale horticulture. This society shows strong differences in the way they discard seeds, peels and fruits with the bones from the consumed animals. This complex and idiosyncratic way of managing the garbage in both the residential camp and the transitory camp are analyzed and compared with other tropical forest forager such as the Nukak. The paper explores the different factors involved in the distribution of trash and in their archaeological visibility.

**Polk, Michael (Sagebrush Consultants, L.L.C.)**

[142] *The Struggle of Urban Infrastructure Development: An Archaeological Case Study from Ogden, Utah*

The evolutionary development of cities in the United States has universally involved additions of increasingly complex infrastructure elements. As the population increases, the development of formal thoroughfares and culinary water delivery has been followed by the use of increasingly complex sewage and trash disposal systems. In many cases, resistance to these changes occurs by landowners and occupants which can be observed in both the historical and the archaeological record. An archaeological excavation project on Block 37 in Ogden, Utah, provides an interesting case study of these observations. Development of this city block occurred from the 1870s until well after 1920. City ordinances, sewer connect records and other historical documents are compared with archaeological information to provide unique insights into the evolution of one city's struggle in the growth of its infrastructure.

**Polkinghorne, Martin (University of Sydney)**

[144] *Do the Temples Measure Up? Pattern and Disjuncture in Khmer Temples*

Khmer monuments have defined interpretation of Angkorean civilisation for 150 years, but have not been considered in their own structural terms. To make sense of the seemingly chaotic corpus of temple forms and design, analysis has primarily been concerned with verification of epigraphy, correlation with Indian 'models', and establishment of linear stylistic chronologies. Scrutiny of the dimensions of the celebrated temples shows that form was bound neither by inscriptions, potential architectural treatises or conventions of linear progressionism. Khmer temples' possess distinct spatial signatures, both of design elements and dimensions in which discontinuity reveals aspects of indigenous architectural transformation and innovation.

**Pollack, David [95] see Mink, Philip**

**Pomfret, James (Georgia DOT)**

[95] *Using Ground Penetrating Radar to Guide Archaeological Subsurface Investigations: An Example from Ceylon Plantation*

The Georgia Department of Transportation (GDOT) recently purchased a ground penetrating radar (GPR) unit for the purpose of investigating archaeological sites. The hope was that GPR could be used to thoroughly investigate archaeological sites, locate cultural anomalies, and make archaeological excavations more productive. It was believed that by using GPR, one could save time and money by focusing excavations on anomalies (i.e., features) rather than making educated guesses as to where the features would be located on a given site. GPR has the potential to locate distinct cultural features and take the guess work out of where to place formal excavation units. The first project that GDOT utilized GPR was on the Ceylon Plantation site (9MC372). The goal was to locate cultural features and make Phase II site testing more productive. The results of this investigation are provided as a prime example of how GPR can be effectively utilized to investigate archaeological sites.

**Pool, Christopher (University of Kentucky)**

[135] *Do Chains Make Good Bridges? Applying Technological Choice to Archaeological Ceramic Assemblages*

Behavioral and cultural approaches to technological choice grounded in actualistic research offer important insights into the causes and implications of variation in ceramic assemblages. Neither, however, has yet found wide application in archaeological studies of pottery manufacture by U.S. archaeologists. This paper draws on the author's research in Veracruz, Mexico to examine difficulties in applying the behavioral and techniques e culture approaches to archaeological cases, focusing on critical links in the inferential chain, among them: establishing the domain of "choice," inferring relevant dimensions of social identity, and weighting physical and social performance characteristics.

**Pope, Melody (Glenn A. Black Laboratory of Archaeology, Indiana University), April Sievert (Indiana University) and Brad Koldehoff (Illinois Transportation Archaeological Research Program)**

[95] *Microolithic Technology, Household Economy, and Community Interaction in Early Mississippian Farming Communities*

Salvage excavations at the Pfeffer site in the Cahokia region resulted in the recovery of an Early Mississippian house and related features containing large numbers of chert microolithic tools. We conducted microwear analysis on a sample of these tools and demonstrate that the tools were used to work not only with shell but also with other materials. Drawing together research from other Mississippian contexts of production, we consider matters of household economy and daily life, within broader community contexts that focus on art technology and social networks.

**Popelka, Rachel [25] see Speakman, Robert****Popelka, Rachel S. (University of Missouri, Columbia), J. David Robertson (University of Missouri, Columbia), Michael D. Glascock (University of Missouri, Columbia) and Christophe Descantes (University of Missouri, Columbia)**

[25] *Sourcing Red Ochres by Instrumental Trace Analysis*

Red ochres are ubiquitous on many North American archaeological sites, and are found in cave artwork, mortuary contexts, and other ceremonial milieu. Because of their importance, certain ochre pigments may have been traded from site to site for their unique qualities. To date, ochre pigments have not been well characterized by elemental methods. This project analyzes red ochres from several sources using instrumental trace analysis techniques, including neutron activation analysis (NAA), particle induced x-ray emission (PIXE), x-ray fluorescence spectrometry (XRF). Multivariate statistical analyses of the data indicate geochemical trends in the ochre sources that satisfy the provenance postulate.

**Popenoe de Hatch, Marion (Universidad del Valle, Guatemala)**

[81] *The Mesoamerican Preclassic: A View from the South Coast of Guatemala*

Since the 1977 publication by Gareth Lowe regarding the Mixe-Zoque as competing neighbors of the early Lowland Maya, considerable advances have been made towards understanding the Preclassic period on the South Coast of Guatemala. The information indicates that the spread of Olmec and Maya styles in this region was due mainly to commercial relations but that scientific/ideological concepts were also a substantial component in the interaction. There is little evidence of Mixe-Zoque ethnic intrusion into Guatemala during the Preclassic period. The talk summarizes the current information from Guatemala.

**Popov, Vladimir K. (Far Eastern Geological Institute, Vladivostok, Russia), Michael D. Glascock (University of Missouri, Columbia, MO), Robert J. Speakman (University of Missouri, Columbia, MO), Andrei V. Grebennikov (Far Eastern Geological Institute, Vladivostok, Russia) and Andrei V. Ptashinsky (Kamchatka State Pedagogical University, Petropavlovsk-Kamchatsky, Russia)**

[163] *Sources of Volcanic Glass at Kamchatka Peninsula, Russian Far East: Recent Geochemical Study*

Within the framework of CRDF Project RG1-2538-VL-03, in order to reveal major sources in volcanic glass-rich area of the Kamchatka 40 samples of rhyolite-type obsidian and perlite from 3 prehistoric sites and 14 outcrops for the first time were analyzed in 2003-4 by INAA. At least 7 different geochemical groups were identified, 6 from Eastern Kamchatka and at least 1 from Central Kamchatka. Some of them (Karymsky volcano and Nachiki, Eastern Kamchatka range) were used in prehistory as sources of obsidian raw material. Another possible source is located at

the Ichinsky volcano area, in the Central Kamchatka range.

[4] *see Frashuer, Anya C.*

**Popova, Laura (University of Chicago) and Madeleine McLeester (University of Chicago)**

[93] *Rich Homeland: A Paleobotanical Study of a Late Bronze Age Settlement in the Forest Steppe -Baitugan, Russia*

During summer 2004, a joint Russian-American team excavated a unique metal working settlement in the forest-steppe region of Samara, Russia (Middle Volga Region). A goal of this research was to better understand how Late Bronze Age groups interacted with and were constrained by this particular type of environment. The settlement site at Baitugan (Rich Homeland in Chuvash) had good preservation of both pollen and macrobotanical remains allowing us to illustrate how people utilized the local vegetation and arranged their living space during that time. This poster will focus on the rich botanical data from this Late Bronze Age site.

**Poseyesva, Lanell (Hopi Tribe), Dawa Taylor (Hopi Tribe), Marvin Lalo (Hopi Tribe) and Michael Yeatts (Hopi Tribe)**

[74] *Hopiit Hisatkuktota: Finding a Value for Archeology within Modern Hopi Society*

Increasingly, the Hopi people recognize that the younger generations are losing the ability to speak the Hopi language, and with it, the centuries-old heart of the Hopi way of life, one that was traditionally conveyed by oral means. A newly initiated program pairs Hopi elders with teachers in an effort to develop culturally relevant educational programs utilizing the rich Hopi heritage in the Southwest. This heritage is manifest in the archaeological sites in the region. Drawing on the traditional understanding of these resources is allowing development of an educational curriculum that is both interesting and culturally relevant to Hopi students.

**Post, Stephen S.** [139] *see Lakatos, Steven A.*

**Potter, James (SWCA) and Tom Yoder (SWCA)**

[97] *Agency and (pit)Structure: Negotiating Identity in Early Northern-Southwest Villages*

Early villages in the northern Southwest are notable for their relatively short occupation spans and for the variety of strategies employed to integrate newly aggregated social units. A major challenge to the stability of these early communities was that households often derived from different areas of the Southwest with diverse cultural traditions, histories, and cultural capital. Using data from Ridges Basin in Colorado, this paper examines the agency of early Pueblo I households within the structure of a multi-ethnic "aggregated landscape" and how material culture, especially pit structure architecture, played a role in negotiating household identity.

**Potter, James** [97] *see Varien, Mark*

**Pottier, Christophe (EFEO)**

[144] *Prehistoric Occupation in the Angkor Region*

Angkor is famous as the location of the great medieval Khmer capital between the 9th and the 15th-16th century AD. A Pre-Angkorean occupation that is the antecedent to the Angkorean city is also known from the early centuries AD. Now a substantial prehistoric occupation, preceding the Pre-Angkorean, is being identified by the research of the EFEO particularly at the sites of Prei Khmeng and Koh Ta Meas in the area of the West Baray. These sites contain cemeteries of extended inhumations associated with substantial grave goods including ceramics and artefacts of bronze and iron.

**Powell, Gina (CAR-SMSU)**

[145] *Archaeobotany at Delaware Town, a 1820s Resettlement of Lenape West of the Mississippi: How History and Environment Shaped Their Menu*

Excavations at 23CN1, near Springfield, Missouri, have revealed the hypothesized location of Delaware Town, the center of the 1820s Lenape resettlement. Feature 2, a large pit with midden-like deposits, contained iron, brass, ceramics, animal bones, glass and shell beads, trade silver, and charcoal. The archaeobotanical assemblage from Feature 2 resembles that of a Late Prehistoric site although the Lenape had been in contact with Europeans since the 1600s. The lack of Old World crops might be due to unique social and political conditions and/or poor farming conditions.

**Powers, Rebecca (Northern Illinois University)**[70] *Marine Mollusks at the Preceramic Site of Caballote, Fortaleza Valley, Peru*

Preceramic (3000-1800 BC) sites with multiple large platform mounds have been identified in the Fortaleza Valley. The presence of mollusk shell at these sites suggests trade or direct exploitation of marine resources, presumably as a protein source. Two species, clams and mussels, make up the bulk of shellfish remains. Mollusk remains in stratified samples from the site of Caballote were identified and weighed. Patterns in these data may show changes over time in the environments exploited as well impacts such as overfishing or El Niño effects.

**Powers, Robert (National Park Service) and Catherine Cameron (University of Colorado)**[154] *Taking Chaco out of the Canyon: Gwinn's Contributions to the Discovery and Understanding of Chacoan Outliers*

In the early 1970s most archaeologists thought Chaco was a sandstone canyon with a dozen architecturally unique pueblos and an unusual array of exotic artifacts. Its cultural influence seemed as limited as the canyon was isolated. One archaeologist who thought otherwise was R. Gwinn Vivian. Growing up in the Canyon, Gwinn was one of the few who had seen the Chacoan phenomenon - outliers, roads, staircases, and great kivas. To Gwinn, Chaco was clearly larger, more complex, and more anomalous than anyone realized. In this paper we explore Gwinn's prescient ideas and how they have shaped modern conceptions of Chaco.

Powis, Terry [148] *see Howie, Linda*Prado, Kathy [157] *see Nance, C. Roger***Prager, Christian Manfred (Institut für Altamerikanistik & Ethnologie)**[72] *Human Sacrifice in a New Key: The Ritual Treatment of the Human Body among the Classic Maya Elite (Literature and Art)*

This study responds to Klaus Helfrich's seminal work on Maya human sacrifice and presents its underlying ritual concepts in a new key, regarding occision simply as one of many alternatives in the ritual treatment of the human body. Following Pierre Bourdieu and Robert Merton, rituals are viewed as sociocultural and motivation directed strategies of a group. Despite their unified objectives, body-modifications suffered a great diversification in forms of body modifications, expressing systemic dysfunctions and social change. In this light, I will discuss objectives and meanings in the treatment of the human body and their spatio-temporal expressions in Classic Maya society.

Prasad, B.V.R. [85] *see Jorde, Lynn*Prates, Luciano [49] *see Luchsinger, Heidi***Prentiss, William (The University of Montana)**[121] *The Emergence of New Socio-Economic Systems in the Middle Holocene Pacific Northwest*

Complex systems feature dynamics that are integrated at scales above their constituent parts. Emergence of new systemic forms is not a gradual result of cumulative change at lower scales, but a consequence of evolutionary processes acting on the larger scale of the system itself. This paper outlines an archaeological theory of emergence emphasizing adaptive and exaptive processes. It then applies the concepts to develop a better understanding of cultural evolution during the Middle to Late Holocene in the Pacific Northwest region of North America. Recommendations for further research are offered.

Prentiss, William [121] *see Lenert, Michael***Preucel, Robert (University of Pennsylvania)**[20] *Writing the Pueblo Revolt*

Among the most important contributions of Postcolonial theory has been the critique of history as written from the point of view of the colonizer. This critique is not simply a plea for some "total history" that adds in the perspectives of the colonized. Rather it draws attention to how colonial representations and modes of perception are used as weapons of power to maintain the colonial relationship. In my presentation, I focus on how the Pueblo Revolt of 1680 has been written. I contrast the work of the Borderlands historians with that of Pueblo Indian scholars. I suggest that there has been a systematic, albeit unconscious, devaluing of indigenous values and beliefs. I then suggest the possibility of different histories written by indigenous scholars and, where appropriate, in collaboration with Western scholars as a means of reclaiming cultural identities. I also provide some examples that suggest that Southwestern archaeology is taking the lead in this "writing back to the center."

**Price, Neil (University of Uppsala) [67] *Discussant***

**Price, T. Douglas (University of Wisconsin, Madison) [155] *Discussant***

**Price, T. Douglas (University of Wisconsin-Madison), Lori Wright (Texas A&M University) and Christine White (University of Western Ontario)**

[72] *Place of Origin of Victims of Sacrifice: Isotopic Evidence*

Isotopic analyses of victims of sacrifice at the Mesoamerican sites of Teotihuacan, Kaminaljuyu, and Copan was undertaken to examine the places of origin of these individuals. Were the victims largely local persons or did they come from distant areas, captured or purchased specifically for sacrifice? Strontium and oxygen isotopes have been successfully applied in Mesoamerica to questions of migration and place of origin. We use both isotopes to examine approximately 40 individuals found in contexts of sacrifice. The results document both long-distance homelands and local origins for these unfortunate persons.

**Proue, Molly (University of Arizona)**

[161] *A Ceramic Analysis of the Introduction of Domesticated Sheep at Zuni Pueblo*

Even though sheep came to the southwest with Coronado, the question of adoption of the domesticated sheep at Zuni Pueblo is still an ongoing research problem. Most analyses of adoption of domesticates have been done through zooarchaeological work. In contrast, this paper uses ceramic analysis to look at changes in animal usage, specifically domesticated animals, at Zuni through residue analysis of cooking pots and changing firing regimes of decorated ceramics.

**Proue, Molly [98] see Sergeeva, Marina**

**Prufer, Keith (Wichita State University)**

[112] *Sacred Geography and Mountain Caves in the Highlands of the Lowlands*

Replete with caves, the Maya Mountains are the highest relief feature in the Lowlands. As such, they formed a significant feature in the sacred geography of the Maya. Both mountains and caves were important Precolumbian pilgrimage destinations with implications for political and religious organization. The presence of materials from across the Maya Lowlands in caves near rural mountain communities links this region to more cosmopolitan neighbors. It also suggests that dramatic religious landscapes lend prestige value to communities and were considered important elements in site planning.

**Ptashinsky, Andrei V. [163] see Popov, Vladimir K.**

**Pugh, Christina Waskiewicz (Washington University) and Severin Fowles (University of Michigan)**

[69] *The Clements Site: Re-evaluation of the Archaic Period in the Taos District*

While surveying the Rio Grande del Rancho Valley in 2004, a Middle to Late Archaic Site was found that offers insights into Archaic occupation in the Taos District. The Clements site, significantly larger and more complicated than previously documented regional Archaic sites, extends along a terrace edge for a kilometer, and includes a variety of hearths, fire-altered rock features, cairns and lithic processing areas. We report on preliminary mapping, test excavation, and lithic analysis from the Clements site. This research allows a re-evaluation and problematization of the scale, nature, and chronology of the Archaic within the Taos district.

**Pugh, Timothy (Queens College/CUNY)**

[112] *The Concept of "Ritual" and Late Postclassic Ritual in Practice*

Various theorists have discussed the common attributes of ritual events. This paper considers those characteristics in relation to data collected at Late Postclassic Zacpetén in Petén, Guatemala. In many ways, the data support the theoretical constructs and in others, they diverge from the generalizations.

**Pugh, Timothy (Queens College/CUNY) [41] *Discussant*; [73] *Discussant***

**Pulliam, Christopher (U.S. Army Corps of Engineers, St. Louis District)**

[33] *The U.S. Army Corps of Engineers Approach to Orphaned Collections*

The U.S. Army Corps of Engineers has procedures for budgeting for and funding the management and curation of orphaned collections. The Corps' St. Louis District has been successfully curating its orphaned collections using these procedures since 1998. The success of the St. Louis District in caring for these archaeological materials is directly related to the strong

commitment from its personnel to the long-term care of these archaeological materials and the effective and continuous communication among cultural resources managers, operational project managers, and budget analysts.

**Purser, Margaret (Sonoma State University) [11] Discussant**

**Puseman, Kathryn (Paleo Research Institute, Golden, Colorado) and Linda Scott Cummings (Paleo Research Institute, Golden, Colorado)**

[53] *Protein Residue, Pollen, Phytolith, Starch, and Macrofloral Analyses, Buckeye Knoll Site, (41VT98), a Multicomponent Site & Archaic Cemetery, Southeast Texas*

The Buckeye Knoll site (41VT98) is a multicomponent site containing material ranging from the Paleo Indian to the Late Prehistoric located in southeast Texas. An Early Archaic cemetery contained five burials that yielded calibrated radiocarbon ages of approximately 7300 to 6300 years B.P. Mortuary goods consisting of lanceolate points and possible "net sinkers" were analyzed for protein residues. Burned clay nodules, hearth stones, and ground stone fragments were washed to recover pollen, phytoliths, and starches. Macrofloral samples were examined from the fill of burials and clusters of burned clay nodules believed to represent hearths.

**Pyburn, K. Anne (Indiana University) [134] Discussant**

**Pye, Mary [81] see Lowe, Lynne; [157] see Gutierrez, Gerardo**

**Pykles, Benjamin C. (University of Pennsylvania)**

[63] *The Archaeology of the Mormons Themselves: A History of Historical Archaeology at Mormon-occupied Sites*

Mormons' interest in archaeology began in the 1840s, but was centered on finding evidence of the Book of Mormon's antiquity. The Church shifted its archaeological efforts to its own historic sites, however, in the 1960s. This occurred precisely at the same time that historical archaeology was emerging as a professional discipline. The Church's use of historical archaeology over the last half-century presents itself as a particularly illustrative case study in the history of the discipline at large. Further, the Church's archaeological research plays an important role in the formation and maintenance of Mormon identity.

**Quilter, Jeffrey (Dumbarton Oaks), William Doonan and Regulo Franco Jordan**

[66] *Magdalena de Cao Viejo: A Late Sixteenth Century Church in Northern Peru*

In the summer of 2004, preliminary excavations were carried out at the ruins of Magdalena de Cao Viejo, at the mouth of the Chicama Valley, Peru. The church was constructed in 1566 in the plaza of the ruins of the Huaca Cao Viejo, a Moche temple complex, and abandoned in 1616 after a major earthquake. Relatively small excavations uncovered normally perishable materials, including over 600 fragments of colonial era documents. These remains offer the opportunity to investigate the relations between native and colonial beliefs and practices from a number of perspectives.

**Quilter, Jeffrey (Dumbarton Oaks) [32] Discussant**

**Quinlan, Angus (Nevada Rock Art Foundation) and Alanah Woody (Nevada State Museum & Nevada Rock Art Foundation)**

[35] *Circular Forms in Southern Nevada Rock Art: A Contextual Interpretation of a Universal Motif*

Circular forms are found throughout Native North America from settlement archaeology (mortars, house rings, hunting blinds, etc.) to ritual structures and symbolic systems. The circle therefore informed the experience of daily and religious life for many Native American peoples, sometimes functioning as a core symbol. This paper explores the role of circles as a motif in the rock art of southern Nevada and addresses the challenges posed by the archaeological interpretation of long-lived symbolic schemes that are expressed through universal motifs.

**Quinn, Colin (Washington State University)**

[3] *Use-Wear Under Fire: An Experimental Reexamination of Gunflint Technology*

Despite their ability to aid in reconstructing past economic and social practices in the historical periods, remarkably few studies have looked at gunflints. In this research, experimental tests were conducted using various raw materials to analyze use-wear patterns and to examine gunflint firing reliability. Through experimental archaeological techniques, it is hoped that use-wear and functional studies on gunflints can determine whether gunflints can be used to reconstruct a

pattern of artifact use-life and apply it to understanding the difficulties and pressures that would have been encountered by peoples utilizing flint-lock weapons.

**Quinn, Colin [133]** *see* Finlayson, Bill

**Quintero, Leslie (University of California-Riverside), Philip Wilke (University of California-Riverside) and Gary Rollefson (Whitman College)**

[78] *The Acheulian of Ain Soda and the al-Jafr Basin, Jordan*

Recent concentrated research in Jordan reveals the importance of Lower Paleolithic occupations in now-arid Pleistocene lake regions of the eastern deserts. Thirteen Middle Pleistocene sites along the margins of Lake al-Jafr and Lake Azraq provide evidence of a previously undocumented focus of large game hunting and butchery by Paleolithic hominids in these lakeside environments. Together, these sites provide striking evidence of specialized regional adaptations that have heretofore been unrecognized.

**Quintero, Leslie [78]** *see* Rollefson, Gary; *see* Wilke, Philip

**Quirarte, Jacinto (University of Texas at San Antonio)**

[81] *The Relationship between Olmec, Izapan, and Maya Art: A Re-Examination*

I will re-examine the relationship between Olmec, Izapan, and Maya art in light of new discoveries in all three areas taking into account my earlier work on these materials. Clarifying the confines of each art style will get us closer to determining how each is related to the other. The works of art comprised of images, signs, and, in some cases, texts (glyphs) will be studied in terms of format, frame, balance, space, proportions, and scale. Images show figures and events, signs signal but do not show them, and glyphs may identify and place them in time.

**Raab, Ann (California State University, Northridge) and Larae Brown (California State University, Northridge)**

[76] *Baja California Sur, Mexico: A Natural Laboratory for Forager Mortuary Archaeology*

Mortuary studies in Baja California Sur (BCS), Mexico are reviewed. Several factors make this region a natural archaeological laboratory for the study of forager mortuary patterns. Preservation of burial data from a variety of environmental settings, including permanently wet and dry environments, allows mortuary variability to be assessed in regional perspective. These data allow important hypotheses to be evaluated, including models stressing the importance of territoriality and descent in shaping mortuary variability. Without the urban-industrial impacts of many other North American regions, BCS offers outstanding prospects for the use of modern research tools, such as DNA and bone isotope studies.

**Raab, L. Mark (California State University) and Jim Cassidy (University of California, Santa Barbara)**

[19] *Early Seafaring at Eel Point, San Clemente Island, California*

Stone tools and other evidence indicate sophisticated seafaring capabilities and maritime hunting adaptations by 8,000 to 9,000 B.P. on San Clemente Island, California.

**Raab, L. Mark [146]** *see* Brown, Larae

**Raab, Mark (California State University, Northridge) [120]** *Discussant*

**Rademaker, Kurt (University of Maine), Daniel Sandweiss (University of Maine), Michael Malpass (Ithaca College), Adan Umire and Pablo de la Vera Cruz (Instituto Nacional de Cultura)**

[49] *Alca Obsidian and Early Coast-Highland Interaction in Southern Peru*

We report on 2004 investigations at Waynuna and Quebrada Pulhuay in the Cotahuasi Valley, Peru. Waynuna is the closest known preceramic site to the Alca obsidian source and thus appropriate to examine coast-highland connections suggested by the presence of Alca obsidian at Quebrada Jaguay, an early coastal site. Preliminary excavations at Waynuna revealed an intact preceramic house with associated features and refuse, including Alca obsidian. Following earlier investigations, we also identified a major extension of the Alca obsidian source and associated quarry, workshop, and occupation sites at Quebrada Pulhuay. This research contributes to understanding preceramic highland occupations in southern Peru and possible relationships between this area and the adjacent coast.

**Rafferty, Sean (University of Albany)**

[21] *The Archaeology of Alkaloids*

Most residue analysis projects in archaeology focus on recovering evidence of food remains by



identifying characteristic protein or lipid compounds. This leaves out many compounds in the natural environment, some of which with pharmacological properties. Most common in this category are alkaloids, which occur naturally in a variety of plants. This paper reviews the potential of alkaloids to provide valuable information on past ways of life, and the current instrumental approaches to their recovery.

**Rafuse, Dan [27]** *see Backhouse, Paul*

**Rahmani, Noura (University of Alberta)**

[150] *From Mitred Cores to Broken Microliths: in Search of Specialization during the Capsian*  
During nearly four millennia, Capsian foragers occupied the high plains of eastern Algeria and southern Tunisia, during which time they developed a very successful adaptation to a semi-arid environment that was subject to constant variation. Around 8000 BP, and corresponding to an abrupt environmental shift, a technological change occurred that led to major social transformations. Capsian toolmakers adopted a new technique of knapping to produce microliths and also diversified their toolkit. In this presentation we explore the Upper Capsian chaîne opératoire and discuss the specialization that was one result of the technological shift. From mitred cores to broken microliths, we attempt to identify evidence of specialization throughout the entire chaîne opératoire. Between the specialization of the debitage and the specialization of the sites, we try to determine the technological choices made and the notion of site function during the Upper Capsian.

**Railey, Jim A. (SWCA Environmental Consultants)**

[55] *Sacralization of the Mundane: Ceramic Evolutionary Cycles in Ancient China*  
Sacralization of formerly widespread behaviors or objects is a pervasive feature of the human experience. The transformation of once-common traits into markers of esoteric knowledge often gets caught up in sociopolitical dynamics, and is subject to exploitation by elites. Such a process may have involved two kinds of ceramics in ancient China: Middle Neolithic painted pottery, and the ding tripod of Neolithic and later times. Research in the Yuanqu Basin of north-central China suggests that each of these ceramic types were widely accessible early on in their evolutionary life spans, but their manufacture and use became increasingly restricted over time.

**Ramenofsky, Ann (University of New Mexico), Jeremy Kulisheck (Southern Methodist University) and Michael Church (University of New Mexico)**

[94] *Early Colonial Pueblo Population Change in New Mexico: The Aggregated and Small Settlement Record*

Pueblo population change through the early colonial period bridges prehistory and more recent demographic trends, but the nature of that change is undetermined. The lack of resolution stems from assumptions regarding residential permanence at aggregated settlements and reliance on incomplete documentary records. Our method uses both aggregated and small settlements in the Rio Grande corridor to assess population change. The results are unexpected and important: small settlements are founded coincident with large settlement abandonment following Spanish colonization. This increase suggests that residential mobility continues into the historic period. Dispersion, not population decline, best accounts for the abandonment of aggregated settlements.

**Ramirez, Felipe (IIA-UNAM) and Ann Cyphers**

[81] *Nexos notables en el Preclásico inferior y medio (Important Nexus during the Lower and Middle Preclassic)*

En el presente trabajo se examinan algunas relaciones políticas que pudieron darse entre las elites de varios sitios del Golfo, así como entre el sector alto de la sociedad del Altiplano. Se explora la estructura del poder y la de evidencias derivadas del arte monumental, los patrones y la arquitectura. (Political relationships among elites from several sites on the Gulf are examined, as well as in the upper echelons of Altiplano society. The organization of power is explored, as well as the patterns derived from the study of monumental art and architecture.)

**Ramirez, Susana [149]** *see Liot, Catherine*

**Ramirez-Urrea de Swartz, Susana (Universidad de Guadalajara)**

[157] *The Aztatlán Iconography (850-1350 AD) in Western Mexico: A Preliminary Study*  
Around 850 AD, start a new phenomena in Mesoamerica marked by the Toltec merging as well as another political center in Central Mexico, Cholula in Puebla, Tajin in Veracruz, Oaxaca, etc.

Western and Northwestern Mexico were not the exception. A new ways of living, political relationships and ideology were developed, reflected in innovations in technologies, new cultural practices and the use of a new iconography. This paper will present an approach to the Aztatlán iconography seen mainly in ceramics and carved stones and its similarities with other contemporaneous materials. Among the most common elements, motif and image it has the fire serpent (xiuhcoatl), shell, skulls, bones, feathers, dots, stepped greys, birds, and some gods as the feather serpent or Ehecatl Quetzalcoatl, Gods of the Dead or Mictlanteculiti, Tláloc, Xipe and probably Tezcatlipoca. On the other hand, these similarities might testify a common thought used by the elites and could be the witness of interaction between Western and Northwestern Mexico and Central Mexico and, also be a part of panmesoamerican religion.

**Ramstein, Gilles [44]** *see d'Errico, Francesco*

**Randall, Asa R. (University of Florida) and Kenneth E. Sassaman (University of Florida)**  
[8] *(Re)Placing Archaic History*

The foundations of many of Florida's shell mounds are preceramic Archaic in origin. While the initial context of occupation is unclear, through time such places provided a historical benchmark that shaped how later Archaic inhabitants moved through the landscape and engaged in mundane and ritual practice. In periods of hydrologic and social reconfiguration, these places were both transformed and transforming, as inhabitants recreated their histories through the mounding and redeposition of shell. This study draws on recent investigations along the middle St. Johns River in central Florida, particularly Hontoon Island, to theorize about long-term places in Archaic histories.

**Randall, Asa R. [151]** *see Sassaman, Kenneth E.*

**Ranere, Anthony (Temple University), Pat Hansell (Temple University) and Richard G. Cooke (Smithsonian Tropical Research Institute)**

[123] *Flake and Blade Tools at Cerro Juan Diaz and in 'Gran Coclé': Their Roles in Local and Regional Economies*

It appears that stone tools made out of good quality amorphous silica were not produced at Cerro Juan Diaz. On the other hand, expedient tools made out of locally available, coarse-grained fossil wood were made in large quantities towards the end of the site's occupation. At two partially coeval nearby villages, - Sitio Sierra and La Mula-Sarigua - high quality blades and pointed multi-purpose tools were manufactured. We look at the relationship between finished tools and manufacturing debris at these three sites and discuss the evidence for standardization and inter-community exchange.

**Raney, Anne (Northern Arizona University) and Laurie Webster (University of Arizona)**

[111] *Weaving Identity: Visualizing Cultural Difference through an Analysis of Sinaguan Textiles*

Archaeologists distinguish the prehistoric Sinagua culture of central Arizona from the Ancient Puebloan to the north and from the Hohokam to the south. Additionally, scholars divide the Sinagua into a Northern group (located near present day Flagstaff) and a Southern group (located in the Verde Valley) based on architectural styles and certain aspects of the material culture. Did the prehistoric Sinagua see the cultural division between North and South? Did they work to maintain or diffuse the differences? This paper explores the prehistoric reality of the Northern-Southern Sinagua division through an analysis and comparison of textiles from both areas.

**Rasic, Jeff (NPS - Gates of the Arctic) and Daniel Odess (University of Alaska, Fairbanks)**

[9] *Phased Lithic Reduction and Late Pleistocene Mobility in Interior Alaska*

Analysis of a systemic toolkit from 49KAT6, a Late Pleistocene site in interior Alaska, reveals the presence of multiple, intertwining production sequences and strategies. The presence of bag wear on flakes, blanks, preforms, and finished tools reveals that objects in all phases of manufacture were transported and that lithic tool production was a staged, intermittent activity occurring over weeks or months as people traveled around the landscape. Such a tool manufacturing strategy suggests problems with an approach that uses type-sites to define cultural complexes, as has been common in Alaskan archaeology.

**Rasic, Jeff [106]** *see Odess, Daniel*

**Rathje, William (Stanford University) [147]** *Discussant*

**Rattray, Evelyn (Instituto de Investigaciones Antropológicas, National University of Mexico)**

[58] *The Mold Impressed Wares of Teotihuacan*

Mold Impressed wares are an indicator of Teotihuacan's final phase. The technique appears on locally manufactured vessels, sometimes with elaborate pictorial content such as those on the famous Calpulalpan bowl rendered in pure Teotihuacan style; Gulf Coast and Mayan imports recovered from Teotihuacan Mapping Project collections; and examples with Mayan and Gulf Coast designs from the Merchant's Barrio excavations. Elaborate mold impressed designs in Teotihuacan style also appear on the distinctive applique designs of some imported Thin Orange pots. Human figures and glyph-like signs are common and give us new insights. A reappraisal of this iconography will be attempted.

**Rautman, Alison [139]** *see* Rocek, Thomas

**Ravesloot, John [69]** *see* Woodson, Kyle

**Ravesloot, John C. [69]** *see* Rice, Glen E.

**Raviele, Maria Elena (Michigan State University)**

[150] *Subsistence Transformation and Thermal Pretreatment of Lithic Raw Materials*

It has been proposed that as changes in subsistence occur, modifications in tool manufacture, such as heat treatment of stone material, often coincide. A lithic analysis performed on data from the Schultz site, a stratified Early through Late Woodland occupation in Saginaw County, Michigan, shows an increased use of heat treatment during a period of intensification on wetland resources. Evidence for greater use of thermal alteration is seen in the number of heat treated flakes as well as in the presence of heat treatment facilities.

**Ray, Jack (Southwest Missouri State University) and Neal Lopinot (Southwest Missouri State University)**

[40] *The Early Archaic Sequence at the Big Eddy Site in Missouri*

Excavations at the Big Eddy site in 2001 and 2002 focused on thick stratified Early Archaic deposits in the middle submember of the Rodgers Shelter formation. Rapid aggradation of alluvial sediments during early-middle Holocene times buried and isolated multiple Early Archaic components in stratigraphic and temporally distinct alluvial deposits. The result was the formation of one of the most complete and distinct chronostratigraphic records of the Early Archaic period in the Midwest. An up-to-date summary of radiocarbon and projectile point chronology associated with six Early Archaic components is discussed.

**Razdan, Anshuman [94]** *see* Simon, Arleyn

**Reber, Eleanor A. (UNC Wilmington)**

[21] *The Well-Tempered Pottery Analysis: Residue and Typological Analysis of Potsherds from the Lower Mississippi Valley*

A combination of absorbed residue analysis and typological study is one of the best ways to interpret archaeological pottery use. Applying these techniques to 28 sherds from the Lower Mississippi Valley shows a widely varied diet that continued through time as maize was introduced to the region. Residues provide a new way of looking at archaeological typology and human behavior.

**Redding, Richard (University of Michigan)**

[92] *The Domestication of Sheep and Goats, Milking and the Origin of Pastoralism - Three Problems and One Answer?*

I have argued that in the initial phase of the shift to food production captured wild sheep and goats were retained and bred as insurance - a risk reduction tactic - while hunting wild taxa was the primary strategy. The shift to full domestication occurred when net yields from the retained proto-domesticates exceeded net yields from hunting. It is argued that the most likely bigger for this event was the use of milk. The early use of domestic sheep and goats for milk as well as meat would have made a pastoral strategy energetically viable for the human population.

**Redmond, Brian [106]** *see* Eren, Metin

**Reed, Alan (Alpine Archaeological Consultants, Inc.)**

[105] *Neutron Activation Analysis of Snake Valley Series Ceramics from Western Utah*  
Instrumental Neutron Activation Analysis (INAA) was conducted on 117 Snake Valley series ceramics from Fremont sites along the Kern River 2003 Expansion Project. Research focused on determining (1) whether Snake Valley Corrugated, Gray, and Black-on-gray types were manufactured in the same production tracts; (2) whether vessels found at sites outside the core area of Snake Valley use were obtained through trade or represented locally produced imitations; and (3) whether ceramics found at project nonstructural sites were produced at nearby Fremont villages. INAA data resolved these issues and indicated that trading of Snake Valley Gray was far more complex than anticipated.

**Reed, Angela Lockard (University of Pittsburgh)**

[152] *The Gender Implications of Sweatbath Use and Change*

The use of sweatbath structures is relatively common within domestic and ritual life in the highlands of present-day Mesoamerica and appears also to have been common in both domestic and public contexts throughout prehistoric Mesoamerica. Sweatbath function can be varied: from simple cleansing of the body, to rituals conducted by men and associated with the Mesoamerican ballgame, to ritual cleansing by women after childbirth. Using ethnographic, ethnohistoric, and archaeological data on sweatbaths, this discussion will elaborate on changes in sweatbath function through time and how these changes affected women and men's roles in society.

**Reed, Kaye [44]** *see* Pinto, Ana

**Reed, Paul (Center for Desert Archaeology)**

[139] *Early Puebloan Villages and Communities across the Greater San Juan Basin*  
Dramatic changes occurred from AD 200-900 (late Basketmaker II through Pueblo I) in Puebloan groups across the greater San Juan Basin. During this time, the first villages developed and the foundation for all subsequent Puebloan developments, including those in Chaco Canyon, was laid. Considerable evolution in architecture, settlement patterns, ritual practices, economy, and sociopolitical organization is apparent in the archaeological record. This paper explores this critical period in Pueblo history, focusing on multiple aspects of the progression from single-household sites to simple villages, and, finally, to large, aggregated communities after AD 850.

**Reedy-Maschner, Katherine [71]** *see* Mack, Sean; *see* Maschner, Herbert

**Reese-Taylor, Kathryn (University of Calgary), Julia Guernsey-Kappelman (University of Texas at Austin), Peter Mathews (La Trobe University) and Marlene Fritzler (University of Calgary)**

[54] *Warrior Queens among the Classic Maya*

Few women are associated with warfare in Maya art, and when depicted, are shown most frequently in supporting roles. However, stelae from Calakmul, Coba, Naachtun, and Naranjo portray queens as warriors in their own right. In these carved monuments, warrior queens stand atop captives, assuming positions of power in compositions accentuating conquest. Moreover, each of the Calakmul and Naachtun stelae is paired with another depicting the king in the same pose in order to emphasize the corresponding roles played by both queen and king. This paper discusses these examples of warrior queens among the Classic Maya and the context in which they arose.

**Reeves, Dan [79]** *see* Bury, Rick

**Regnier, Amanda [143]** *see* Dumas, Ashley

**Reher, Charles (University of Wyoming)**

[17] *You've Seen One, You've Seen a Maul: Functional Variability, Wear and Breakage, Source Material, Mobility Strategies, Social Organization, and More*

A long-standing interest has led to detailed data on an initial sample of more than 60 NW Plains grooved mauls (based on a format with ca. 40 nominal/ordinal/interval variables). These are from campsites, rockshelters, caches, bison kills and quarries, although many are undated surface finds. Similar implements are common enough in the Middle Missouri and Southwestern literature, but usually such tools get a passing mention or perhaps a few measurement ranges and an example photograph. Yet these tools display a surprising complexity, including distinct functional clusters and other patterns, and they have a lot to tell us about gender roles, trade systems, adaptive strategies - and more.

Reid, J. Jefferson (University of Arizona) [126] *Discussant*

**Reid, Kenneth (Idaho SHPO), Jason Lyon (Nez Perce National Historic Park) and Kevin Cannell (Nez Perce Tribe)**

[36] *Archaeology of the Nez Perce War in Idaho*

The Nez Perce exodus across Idaho in the summer of 1877 occurred within months of the close of the Great Sioux War and involved several of the same units of the U.S. Army. Battles at White Bird Canyon, the South Fork of the Clearwater, and Camas Meadows left an array of features including rifle pits and parapets and stacked rock enclosures that served to structure fighting space. This paper summarizes current knowledge about battlefield boundaries, lichen-dating of battlefield features, and prospects for dynamic pattern analyses of cartridges, bullets, equipment items, and other artifact arrays of the "post-Civil War battlefield pattern."

**Reitz, Elizabeth J. (University of Georgia), C. Fred T. Andrus (University of Alabama) and Daniel H. Sandweiss (University of Maine)**

[119] *Ancient Fisheries and Marine Ecology of Coastal Peru*

Drawing on stable isotopes, zooarchaeology, climate modeling, and modern analogy, we review and interpret the archaeological record for fisheries along the Peruvian coast. Exploitation of mollusks, crustaceans, fish, sea birds, and sea mammals began in the Terminal Pleistocene, so this region has one of the longest archaeological fisheries records available in the Americas. In contrast to many world areas where prehistoric fisheries had notable impacts on local marine ecology, multiple lines of evidence suggest that for Peru, the biotic effects of natural variability in the marine climate (driven largely by variation in ENSO frequency) predominate over anthropogenic effects. In reviewing the record, we consider the human response to such variability in terms of settlement pattern, social organization, and technology.

**Reitz, Elizabeth (University of Georgia) [161] *Discussant***

**Reveles, Javier [149] *see Liot, Catherine***

**Reynolds, Richard L. [25] *see Kay, Paul T.***

**Reynolds, Robert (Wayne State University and University of Michigan) and Robert Whallon (University of Michigan)**

[89] *Using Cultural Algorithms to Model Social Evolution*

The Cultural Algorithm is an evolutionary computational model derived from the Cultural Evolution Process. The experience of individual agents in a social population is used to generate cultural knowledge in a Belief Space. The knowledge is stored, reasoned about, and manipulated within the space. This Cultural Knowledge can in turn affect the social population. Thus, the population component and the belief space interact with, and support each other as a dual inheritance system. It provides a general framework within which to describe complex adaptive systems. Examples of how Cultural Algorithms are used to model problems of interest to archaeologists are presented.

**Reynolds, Robert G. [89] *see Whallon, Robert***

**Rhode, David (Desert Research Institute)**

[88] *Into the Archaic: Dietary Plant Use During the Pre-Archaic and Paleoarchaic in the Bonneville Basin*

Archaeological records from Danger Cave and Hogup Cave show that small seeds began to be processed and consumed in quantity only after 9000 BP. What was the role of plants in the diet of human foragers before that time? Under what conditions were small seeds incorporated in the diet, leading to the development of Archaic subsistence patterns that prevailed for thousands of years thereafter? Here I review the available Early Holocene paleoenvironmental and archaeobotanical records from the Bonneville Basin, including new results from Danger Cave and Bonneville Estates Cave, to address these issues.

**Rice, Glen E. (Arizona State University), E. Christian Wells (University of South Florida), John C. Ravesloot (Gila River Indian Community) and M. Kyle Woodson (Gila River Indian Community)**

[69] *Landscape between Villages: A Test of the Model Using Hohokam Excavation Data*

Recent archaeological survey along the Middle Gila River of Arizona indicates nonresidential

sites are more numerous than residential settlements, although it is not always possible to distinguish activity areas from habitations based on surface features alone. This poster tests the model proposed by Wells, Rice and Ravesloot (*American Antiquity*, 2004) in which quantitative measures of artifact density and diversity of surface collections from artifact scatters are used to distinguish residential sites from nonresidential sites. Excavation shows the model has an 85% success rate; mapping of activity areas shows the distribution of agricultural fields and procurement loci on the landscape between villages.

**Rice, Prudence (SIUC)**

[148] *Type-variety: What Works and What Doesn't*

The type-variety system of pottery classification is useful for some purposes and less useful for others. Part of the problem may be that in the decades since the system was first proposed for use in the Maya area, the practice of both archaeology and ceramic analysis have changed. In the case of Postclassic pottery from the central Peten lakes (Guatemala), type-variety has revealed certain structural parallels in the decorative program. These prompt interesting questions about social relationships among the peoples making and using the pottery, questions that I'm not sure would have been raised otherwise.

**Richard, Marc [42]** *see Myers, Elizabeth*

**Richards, Heather (University of New Mexico), Judith van der Elst (University of New Mexico), Veronica Arias (University of New Mexico), Theresa Kuntz-Range (University of New Mexico) and Richard Watson (University of New Mexico)**

[60] *Advances in Close-range Photogrammetry for Archaeological Site Documentation, Modeling, and Analysis*

Digital documentation of cultural heritage sites can provide data for archival records, computational analysis, site monitoring, and change detection. It offers a non-destructive approach to artifact or site mapping and measurement. This paper describes a cost-effective, close-range photogrammetric method developed for site documentation, modeling, and analysis. A virtual model of the Quarai Mission at Salinas Pueblo Missions National Monument, a complex of archaeological sites located in central New Mexico, was created using digital imagery, an extreme wide-angle lens, and PhotoModeler software.

**Richardson, Laura (Kenyon College) and Claire Novotny**

[129] *Spatial Aspects of Production: The Organization of a Copper Working Area at El Coyote, Northwestern Honduras*

In 2004, PVC staff tested part of a low river terrace on the SW edge of El Coyote for copper producing evidence. Slag heaps were visible on the surface, but there was little else suggesting a workshop. Test pits and clearing operations revealed the following: an ore grinding area; heaps of slag jumbled with broken single-use ovens; two areas where ovens were fired, one with an oven in situ; a bottle, for sorting copper prills from slag; and several enigmatic arrangements of stone, possibly deliberately built. This paper presents information on copper production, emphasizing the locational data.

**Richbow, Linsey [3]** *see Chatman, Kelley*

**Richman, Jennifer (Corps of Engineers)**

[165] *Overview of State Repatriation Laws*

In the fifteen years since NAGPRA's enactment, a number of states have enacted "mini-NAGPRAs" to address repatriation concerns at the state level. This paper reviews those statutes and discusses their interplay with NAGPRA.

**Rick, John W. (Stanford University)**

[160] *New Perspectives on Research and Site Conservation at Chavin de Huantar, Peru*

Ten years of research and conservation work at the monumental formative site of Chavin de Huantar have substantially altered understanding of the site's chronology, construction, and function. Details of energetic investment in the ceremonial center, along with planning and strategy implicit in its architectural complexity extend our concepts of the evolution of authority in early Andean societies. Additionally, advances in knowledge about site structure and construction have led toward an ability to coordinate long-term conservation measures as well as continued investigation at Chavin.

**Rick, Torben (Southern Methodist University), Jon Erlandson (University of Oregon), Todd Braje (University of Oregon), Michael Graham (Moss Landing Marine Laboratory) and René Vellanoweth (Humboldt State University)**

[119] *Historical Ecology and Human Impacts on Coastal Ecosystems of the Santa Barbara Channel Region, California*

The Santa Barbara Channel contains some of the most productive marine environments in the Americas, including offshore islands, kelp forests, estuaries, rocky reefs, and sandy beaches. For over 12,000 years, these environments fostered the development of complex maritime peoples with sophisticated watercraft and subsistence technologies. In this paper, we use archaeological, historical, and ecological data to examine the history of human impacts on Santa Barbara Channel coastal environments. Today, coastal ecosystems in the area are in a state of crisis related to overfishing, landscape modifications, pollution, and other impacts. Effectively restoring and protecting these ecosystems requires historical perspectives.

**Rick, Torben [119] see Erlandson, Jon**

**Ricks, Mary F. (Portland State University) and William J. Cannon (BLM--Lakeview, OR)**

[137] *Archaeological Contexts of Northern Great Basin Rock Art in South Central Oregon*

Warner Valley, Oregon, in the northern Great Basin, holds a rich body of rock art some of which is more than 7,000 years old. Ethnographers working in the area have elicited little information from native people about the rock art; most consultants denied knowledge of how or when the art was produced. Rock art is found in focal activity areas of both lowland and upland archaeological sites. Statistical analyses of cooccurrence of rock art and specific artifact types allow us to infer the activities that might have taken place at rock art sites.

**Ridenour, Dora (University of Idaho), Robert Sappington (University of Idaho) and Julie-anna Rodman (University of Idaho)**

[36] *Results of Recent Investigations at the We'epes Pa'axat Site, Clearwater River Region, North Central Idaho*

The We'epes Pa'axat (five eagles) site was recently recorded prior to construction of a highway-passing lane and test excavations suggested that the site had potential depth and antiquity. Data recovery was conducted from January to May 2004 and it produced projectile points, edge-ground cobbles, and other cultural material indicating Windust, Cascade, and Ahsahka phase occupations. These components were supported by radiocarbon dates ranging from ca. 10,100 to 3,500 BP. Initial faunal analyses demonstrated that large and medium mammals were present. Ongoing analyses indicated that the site was used intermittently for hunting, processing, lithic tool manufacture, and other activities.

**Rider, Micala (University of Arizona), Paul Fish, William Longacre (University of Arizona), Matthew Young (University of Arizona) and Mark Malcomson (University of Arizona)**

[46] *Residue Analysis of Fatty Acids preserved in Pottery Sherds: Method of Interpretation to Account for the Possible Pitfalls in Analysis*

Due to the highly variable state of the preservation of the organic materials that archaeologists deal with, conclusions drawn on the basis of the primary data from residue analysis are usually ambiguous. Sherds from a Hohokam site in Marana (Arizona) are analyzed by gas chromatography/mass spectrometry (GC/MS) at different stages of their excavation and accession to determine to what extent these processes affect the degradation of the fatty acid residues preserved in the sherd. Preliminary results indicate that fatty acids, particularly the unsaturated acids, do not degrade at the same rates which is of great importance to the analysis and its interpretation.

**Riel-Salvatore, Julien (Arizona State University) and Fabio Negrino (Università di Pisa)**

[44] *Raw Material Procurement Patterns and Population Dynamics in the Italian Early Upper Paleolithic*

Contemporary discussions of the Middle-Upper Paleolithic transition need to employ common analytical yardsticks in order to objectively compare the two periods. We present new perspectives on that issue in the Italian peninsula, focusing on raw material procurement dynamics as the analytical constant to compare late Mousterian, Uluzzian, and Aurignacian assemblages. Evidence from the northern and the southern parts of the peninsula combines to suggest that some of the distinctions between the Uluzzian and Aurignacian patterns may reflect fundamentally different ways to conceptualize the Early Upper Paleolithic landscape. These observations are finally used to highlight promising new directions for future research.

**Riel-Salvatore, Julien** [44] *see Clark, Geoffrey A.*; [50] *see Elliott, Michelle*

**Rieth, Christina** [124] *see Horton, Beth*

**Riggs, Charles** [98] *see Munson, Jessica*

**Riggs, Chuck (Fort Lewis College)**

[94] *Mapping Heritage Resources as a Tool for Preservation*

Students participating in the University of Arizona's Field School in Archaeology and Heritage Resource Management were exposed to a number of contemporary archaeological field techniques, including instruction in the principles and techniques of total station mapping. Mapping was conducted at several archaeological sites, representing a variety of time periods in tandem with Tribal and National Forest efforts to assess and monitor looter and fire damage to archaeological resources on the Fort Apache Reservation and in the Sitgreaves National Forest.

**Rincon Mautner, Carlos (University of Nevada) and James Neely (University of Texas)**

[116] *Prehistoric Rock Art from the Cueva Santiago Associated with the Purrón Dam Complex, Tehuacan Valley, Mexico*

Prehistoric images incised on the walls of a small cave above the Purrón Dam provide a glimpse of human activity in the box canyon of the recently surveyed Barranca Lencho Diego. Hunters with spear throwers and game, as well as, geometric and human stick figures constitute some of the earliest art forms and provide evidence of ritual activities associated with hunter-gathering groups and early agriculturalists. This paper considers these recently discovered representations within a broader context that includes rock art from caves and rockshelters in the neighboring Mixteca Alta region south of the Tehuacan Valley.

**Rincon Mautner, Carlos A.** [116] *see Neely, James*

**Rissolo, Dominique (San Diego State University), James Coke (Quintana Roo Speleological Survey) and Samuel Meacham (Centro Investigador del Acuífero de Quintana Roo)**

[112] *Tancah Cave Revisited*

First reported by Samuel K. Lothrop in 1924, the cave at Tancah is perhaps best known for its carved stairway inscribed with idiosyncratic, glyph-like elements. It was the very presence of these purported inscriptions that compelled Lothrop and Sylvanus G. Morley to investigate the large ruined center just north of Tulum. Later studies by Ricardo Robina and most notably by Arthur G. Miller provide insights into the cave's imagery and symbolic meaning. Recent investigations involved a more comprehensive reassessment and detailed recording of the cave's natural and cultural features, as well as a consideration of its location relative to the site of Tancah and numerous other caves and cenotes in the vicinity. Subsequent interpretations benefit from an increased understanding of the role of caves among the ancient Maya and acknowledge recently identified patterns of ritual cave use along the central coast of Quintana Roo.

**Ristevski, John (University of California, Berkeley)**

[160] *The Application of Close Range Laser Scanning Techniques at Chavin de Huantar*

This research examines the results of extensive close range scanning work completed with a Minolta Vivid 910 digitizer. A variety of potential applications were investigated including a comprehensive high resolution scan of the Lanzon which was used as the basis for the construction of a detailed three-dimensional model. Other applications of the technology included the scanning of highly eroded tablets located in the circular gallery with the intention of capturing micro-reliefs not visible to the naked eye and finally the scanning of a sample of pottery sherds to determine its utility for the statistical comparison of stamp marks.

**Rizvi, Uzma (University of Pennsylvania)**

[24] *Exploring Gendered Responses: Documenting the Stories of Change*

There are hidden silent stories behind numbers. According to federal statistics, a decade ago 26% of women in academia were in tenured positions. Has anything changed? Rather than looking at charts and numbers, this documentary will listen to people, to their stories, and to their concerns. The documentary follows the story of graduate student women who chose to make changes: their decisions, the responses, and outcomes. Revolving around issues of chilly climate, lack of female role models, questions about diversity and hiring: this documentary is a slice of stories never told.

**Rizvi, Uzma (University of Pennsylvania)** [20] *Discussant*



**Roberson, Joanna (Southern Methodist University)**

[27] *Chert Source Characterization by Stable Isotope Analysis*

Macroscopically diverse samples of Alibates and Edwards chert, representing multiple outcrops within the Edwards Plateau and Quartermaster Formation and encompassing a wide range of variability, were sampled for geochemical analysis. Results of preliminary oxygen and hydrogen isotopic analyses have shown that some outcrops are highly variable while others are not. Continuing analysis addresses 1) how much variability exists in the isotopic signature of each outcrop; 2) what that variability reflects (age, depositional environment); and 3) whether the isotopic signature correlates with macroscopic features that might be used to better pinpoint specific source areas.

**Roberts, Chris**

[62] *Tossing Significance into the Shoe-Tree: Imitation and Meaning in Upper Paleolithic Representation*

The similarity of many Upper Paleolithic cave depictions is often attributed to a similarity in meaning or creative intent. It appears now that at some sites similar images may be separated by millennia. To explain this phenomenon it may be better to think in terms of physical imitation rather than a pervasive authorial intent. This perspective would consider panels of depictions not as one phenomenon but as an aggregation of phenomena. Instead of searching for one all encompassing meaning we should look for many overlapping meanings to see what resonated with future audiences as well as their creators.

**Roberts, David [34] Discussant****Roberts, Heidi (HRA INC., Conservation Archaeology)**

[35] *Cleared Circles in Desert Pavement: Natural or Cultural?*

When archaeological sites in the Great Basin and Sonoran Desert lie on desert pavement surfaces, clearings in the desert pavement are often recorded as cultural features. Excavations have shown that cleared circles can be the partially buried remnants of prehistoric roasting pits, hearth, or activity surfaces. At the Cyprus Tohono/Hecla project area in southwestern Arizona, older sites contained more completely healed, and less visible cleared circles, than features recorded at younger sites. This paper reviews the desert pavement healing process, identifies natural processes that result in cleared circles, and develops a framework to evaluate whether these features are natural or cultural.

**Roberts, Heidi [94]** see *Eskenazi, Suzanne*

**Robertson, David [25]** see *Speakman, Robert*; see *Popelka, Rachel S.*

**Robichaux, Hubert (University of the Incarnate Word)**

[108] *Archaeological Research at Punta de Cacao in Northwestern Belize: The Emerging Understanding of an Ancient Maya Town*

Ancient Maya towns were integrated into regional political and economic networks. Many ancient towns evidently functioned as intermediaries between cities, and the villages and hamlets in their vicinity. Four years of research at the town-sized Punta de Cacao site in the Three Rivers Region permit an estimation of its radius, area, population, and developmental trajectory. Evidence has been obtained on the structural composition and spatial organization of Punta de Cacao, as well on its environmental setting. This presentation describes our current understanding of Punta de Cacao, and provides insight into the nature and role of towns.

**Robichaux, Hubert [91]** see *Lewis, Brandon*

**Robinson, David (University of Cambridge)**

[137] *Rock-art and its Presence in Landscape and Taskscapes for the Emgidian Chumash of South-Central California: An Integrated GIS Approach*

The inhabitation of Chumash rock-art sites has been viewed from conflicting perspectives: camps removed from villages (Grant 1965), shamanic places nearby but separated from villages (Whitley 2000), or multi-functional (Hyder 1989). To investigate the nature of activities at rock-art localities, GIS is applied to a single linguistic Chumash subgroup. This approach employs cost-surface analyses along with digital mapping of specific sites to examine relationships between rock-art, terrain, and other archaeological sites/features. Thus, macro and micro aspects of human engagements with paths and places are integrated to explicate contexts of travel and dwelling for the Emgidian and the rock-art they produced.

**Robinson, David [79]** see *Bury, Rick*

Robinson, Mark [108] *see McKillop, Heather*

**Robles Garcia, Nelly (Instituto Nacional de Anthropologia e Historia)**

[132] *Management and Conservation of Archaeological Monuments in Mexico*

From its origins, Mexican archaeology developed a dual perspective, in which the obligation for the conservation of archaeological heritage fell upon INAH, Institution that is responsible for research, conservation, and diffusion of this heritage. After many decades in which archaeology and conservation constituted the normal workload for archaeologists, at present, academic efforts have been made to establish the management of archaeological resources as a specific field in which archaeology takes a place inside a wide range of specialties committed to the integral conservation and management of sites. Also presented in this paper are the obligations that foreign projects acquire in the matter of conservation of Mexican archaeological heritage.

**Rocek, Thomas (University of Delaware) and Alison Rautman (Michigan State University)**

[139] *First Millennium Pithouse Village Diversity in Southeastern New Mexico*

The area from the Salinas district southeast through the Jornada Mogollon region has a particularly long tradition of pithouse occupation, including one of the earliest examples of a pithouse village in the Southwest as well as one of the latest (Kelley 1984; O'Laughlin 1980). But underlying this continuity is tremendous environmental and cultural diversity, as well as both convergent and divergent trajectories of change over time. This paper surveys pithouse settlement variation in the first millennium AD to show how the contrasting patterns reflect the interplay of regional and ecological factors.

**Rockette-Wagner, Bonny (Gila River Indian Community, Cultural Resources) and Teresa Rodrigues (Dept. of Anthropology, Arizona State University)**

[22] *An Investigation of Social Organization and Social Spheres Utilizing Shell Mortuary Artifacts from the Point of Pines Region, Arizona*

Prehistorically the Point of Pines region of southeastern Arizona was a place of significant social interaction. Complicated patterns of ethnic co-residence and population movement are indicated by variability in architecture, burial patterns, and material culture. A clear understanding of social organization, spheres, and interactions in the region is lacking. Mortuary offerings provide intimate details of a person's life, and as such are important for interpreting social organization. Shell mortuary artifacts from eleven sites are examined to address questions of social relationships and organization and intersite and intrasite variability. Regional trade networks, manufacture technology, and economy are also discussed.

**Rockman, Marcy (Statistical Research Inc. / UCLA)**

[45] *The Apprenticeship of Landscape Learning: Connecting the Concept to Larger Models of Evolution and Environmental Change*

The landscape learning process is defined as the social response to situations in which there is both a lack of knowledge about the distribution of natural resources in a region and a slack of access to such knowledge that may have been previously acquired by others. The landscape learning concept was first developed to better understand the archaeology of colonization. This paper broadens the theoretical scope of landscape learning, connecting it with the culture and evolution -dual inheritance model of Boyd and Richerson, the variability of selection model of Potts, and the dynamic scalar model of environmental change by Hopkinson.

**Rockmore, Matthew (Penn State University)**

[91] *From Classic to Postclassic in the Central Petén Lakes: Systemic Effects of Regional Collapse on Continuing Populations*

Recent research at the Terminal 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 a population that declined but persisted as an organized group into the Postclassic period. Particular attention is paid to shifts in settlement organization, external economic ties, and social organization, though continuities are also addressed. The primary focus lies on the adjustments made by Maya commoners to significant political disruptions and demographic declines, and especially the likely role of refugees in forcing a shift in settlement patterns.

**Rodman, Julie-anna (University of Idaho), Robert Sappington (University of Idaho), Carolynne Merrell (University of Idaho) and Richard Hill (Bureau of Land Management)**

[36] *Results of Recent Investigations at Roadside Cave, Near Craters of the Moon, Southeastern Idaho*

Roadside Cave is a partially collapsed lava tube located south of Big Southern Butte. Severely vandalized, the Idaho Falls District BLM determined to remediate the damage, protect the remaining cultural deposits, and return the cave floor to a more natural appearance. To accomplish this three test units adjacent to the disturbed area were excavated, recovering lithic tools, sherds, bone tools, and other items. Initial faunal analysis indicates the presence of various mammals, birds, and reptiles. Ongoing analyses indicate that the site was used by late Archaic groups for hunting, processing, tool manufacture, and that it still retains intact deposits.

**Rodman, Julie-anna [36]** see Sappington, Robert; see Ridenour, Dora

**Rodrigues, Teresa [22]** see Rockette-Wagner, Bonny

**Rodríguez-Alegría, Enrique (University of Texas)**

[47] *Cooking Fashions in Colonial Mexico*

Spanish colonizers introduced lead glazing techniques to Mexico. Over the course of the sixteenth and seventeenth centuries lead-glazed cookware became a cooking fashion of sorts among indigenous people. Did the need to acquire this new popular style of pottery affect household integration with the wider economy and society? By examining ethnohistoric accounts and studying patterns of exchange of plain and glazed cooking vessels from colonial Xaltocan one may elucidate the ways in which cooking activities, normally imagined as private and inconsequential for the economy or social change, were integrated with the wider economy and public life in a colonial town.

**Rogers, Daniel (Smithsonian Institution)**

[125] *Empire Strategies: Forms of Continuity and Control in Eastern Inner Asia*

The states and empires originating in the eastern steppe of Inner Asia often played a central role in Asian and World history. Given continuities in cultural and economic practices, especially the legitimization of authority, the construction of order becomes critical in understanding how organizational coherence emerges. In particular, the methods for constructing order are important because of the perceived ephemeral and unsustainable nature of the steppe polities. This perspective is contradicted by recent analyses of cultural continuity, economic patterns, and the strategies used by polities to maintain control.

**Rogoff, David (Kenyon College), Anna Novotny (University of New Mexico) and Leigh Anne Ellison (University of Northern Arizona)**

[129] *Construction Techniques and Regional Identities: Recent Evidence from Las Canoas, Chamelecon Drainage, Northwestern Honduras*

Residents of Las Canoas, located between the Naco and Cacaupala valleys, exported red-on-natural pottery to both. Using symbols to assess allegiances, pottery suggests affiliation with Naco; site planning weakly supports this. Looking at individual structures, there are few definite clues to identity in final-phase construction, although earlier versions of some structures show construction techniques and spatial arrangements (rooms and entries) essentially identical to Classic period Naco architecture. Combining strands of evidence suggest that Las Canoas' primary Classic affiliation was with the valley to its north, but, with time, residents became independent craftworkers beholden to the elite of neither zone.

**Rollefson, Gary (Whitman College), Leslie Quintero (University of California-Riverside) and Philip Wilke (University of California-Riverside)**

[78] *From al-Jafr to el-Kowm: The Lacustrine Corridor and the Acheulian in the Eastern Levant*

The hyperarid landscapes of eastern Jordan and Syria clearly reflect the presence of permanent bodies of water that existed during the Middle and Late Pleistocene. These lakes range from al-Mudawwara on the Jordan-Saudi border to el-Kowm in the central Syrian desert. They varied considerably in size and duration, from the immense Lake al-Jafr and Lake Azraq at one end of the spectrum to smaller bodies of water at Qa'a al-Hasa and Qa'a al-Jinz in east-central Jordan. The combination of permanent water, plentiful local vegetation, and herds of browsers and grazers provided a lucrative route for hunting groups who migrated between Africa and Eurasia.

**Rollefson, Gary [78]** see Wilke, Philip; see Quintero, Leslie

**Roman Lacayo, Manuel (University of Pittsburgh)**

[38] *Agents among Us: Social Change and External Contacts in the Masaya Region, Pacific Nicaragua*

The role of migration in social change has received most of the attention in the reconstruction of Nicaraguan prehistory, especially as it pertains to the last centuries before European contact (1522 C.E.). Recent data from the Masaya region suggests that there are clear differences among neighboring communities in terms of regional settlement patterns, development trajectories and artifact distributions from early on in the local sequence. This may indicate that factors other than migration were more influential over time. Thus, the uncritically accepted role attributed to autochthonous populations, regional interaction and external contacts will be reconsidered.

**Roney, John [141]** *see Hard, Robert*

**Rood, Ronald (Utah Antiquities Section)**

[127] *The Utah Avocational Archaeology Education Program: Professionals and Avocationalists Learning from Each Other*

The Utah Antiquities Section (State Archaeologist Office), along with the Utah Professional Archaeological Association and the Utah Statewide Archaeological Society is in the process of developing a curriculum for avocational archaeology education. This is called the Utah Avocational Archaeology Education Program (UAAEP). The first level entitled "An Introduction to Archaeology, Anthropology and the Prehistory of Utah" has been published and is available via CD ROM. The second level will focus on site documentation, survey and site stewardship. Specialized workshops are an integral part of the overall program and cover a wide range of topics and interests.

**Rood, Ronald (Utah Antiquities Section) [75]** *Discussant*

**Roos, Christopher (University of Arizona)**

[98] *Mobile Farmers? Assessing Variability in Occupation and Food Production during the Early Pithouse Period*

This paper discusses recent excavations at Hall Point, an Early Pithouse Period (AD 200-600) site, in the eastern Mogollon Rim area. Specifically, this paper addresses regional variation in food production and mobility using preliminary evidence from Hall Point and comparative data from Mogollon pithouse sites. Architectural and assemblage variability are evaluated in light of recent discussions concerning low-level food production and pithouse occupations. This approach embraces variability induced by occupation and abandonment processes and eschews dualistic conceptualizations of food production that obscure variability in ancient plant economies.

**Roos, Christopher [98]** *see Dungan, Katherine*

**Roosevelt, Anna (University of Illinois, Chicago) [43]** *Discussant*

**Roosevelt, Christopher (Department of Archaeology, Boston University)**

[83] *Sahankaya in Northern Lydia, Turkey*

Recent handheld GPS survey in the environs of the double-peaked rhyolitic dome of Sahankaya, or Falcon Rock, in northern Lydia, provides a new understanding of its significance. Despite published visits to the site dating from the 17th to the 20th centuries, much had gone unnoticed. Newly discovered features include megalithic walls; an ashlar-built well; numerous rock-cut features, including a possible fire-altar of Persian type; and the foundations of a watchtower. These finds, in addition to other Persian period finds in the vicinity, suggest Sahankaya was a place of possible cult and strategic refuge in the mid-6th-4th centuries BCE.

**Roper, Donna C. [27]** *see Hoard, Robert J.*

**Rose, Courtney (Old Pueblo Archaeology Center)**

[10] *Hohokam Archaeology in Reconstructed Environments and at Archaeological Sites: A Comparison of Teaching Approaches*

Reconstructed environments using replicated archaeological features have gained recognition as a powerful tool for teaching archaeology and its scientific principles. This paper compares teaching approaches carried out in archaeology programs featuring the study of a real Hohokam village (Yuma Wash site) and a reconstructed environment (OPEN2 site). Drawing from cognitive

learning research, factors that influence a learner's ability to transfer knowledge from a synthetic training environment to the real world are investigated. The incorporation of current Hohokam research results into the construction and curriculum development of a simulated archaeological dig's objectives in teaching science has far-reaching implications.

**Rosenberg, Michael (University of Delaware)**

[121] *Evolutionary Culture Theory and the Limitations of Reductionism*

Reductionism has proven a powerful tool in the physical sciences and often almost equally powerful in the natural sciences. To the degree that human beings are biological organisms, reductionism has also been a sometimes-useful conceptual framework for evolutionary approaches within Anthropology. However, humans are also cultural beings. And, cultural systems, even more so than biological systems, have emergent properties that do not necessarily reduce to their constituent components. The reductionism of some evolutionary approaches in Anthropology has hindered their full development as Anthropology. They must move beyond simple reductionism if they are to develop their full Anthropological potential.

**Rosenfeld, Silvana (Stanford University) and Matthew Sayre (University of California, Berkeley)**

[160] *Subsistence Practices at Chavin de Huantar*

Recent investigations in the La Banda region of Chavín, particularly those of the 2003 rescue project, revealed substantial evidence of domestic structures. The analysis of botanical and faunal samples collected from these excavations is shedding light on the daily practices of the people who occupied these settlements as well as their possible interactions with surrounding communities. Additionally, examination of remains from the Circular Plaza and other sections of the ceremonial center will form the basis for future in-depth research on the historical ecology of the region.

**Rosenswig, Robert (Yale University)**

[50] *Beyond Identifying Elites: Feasting as a Means to Understand Early Middle Formative Society on the Pacific Coast of Southern Mexico*

Among pre-state societies feasts provide a public forum where social statuses can be affirmed or challenges, and so, offer insight into how political power was constructed. This poster presents expected material patterns of feasting by focusing on food preparation, presentation and consumption. These expectations are then evaluated using ceramic, ground stone, obsidian and faunal data from the Cuauhtémoc site in the Soconusco region of Mexico. It is argued that elite feasting events at Cuauhtémoc were used to create political cohesion as a new polity emerged around the nearby center of La Blanca during the early Middle Formative Conchas phase.

**Rosenthal, Jeff [151] see Fitzgerald, Richard**

**Ross, John [17] see Leftwich, Brent**

**Rossen, Jack (Ithaca College)**

[39] *Field School Archaeology in the Changing Native Landscape of Central New York*

Over several years, I have developed a version of collaborative archaeology in the heart of the Cayuga homeland, central New York that is tailored to the local sociopolitical situation. The area includes a Native land claim, traditional and non-traditional Natives, and a strident anti-land claim organization. I will describe my collaborations with Native people, conducting politically-aware archaeological field schools while developing a not-for-profit community organization that involves students, promotes respect, and is attempting to return land to the Cayuga. I offer this story as an example of the process of making archaeology a positive force for Native people.

**Roth, Barbara (University of Nevada, Las Vegas)**

[158] *Engendering Mimbres Mogollon Pithouse Occupations*

Studies of Mimbres Mogollon pithouse occupations have primarily focused on issues concerning subsistence strategies, especially agricultural dependence, and settlement mobility. Household data have been used to examine these topics, but have rarely been used to address what was going on within the houses themselves. In this paper, I approach the study of pithouse occupations in the Mimbres area by looking at evidence of gendered activities within houses throughout the Pithouse period. By looking at the data in this way, new insights into the activities of these early Mimbres groups become evident.

**Rothman, Hal (University of Nevada, Las Vegas)**[122] *How the Conflict between East and West Resulted in the Antiquities Act*

The Antiquities Act of 1906, the law that allowed the establishment of national monuments, was a potent addition to the arsenal of conservation. The law resolved a long-standing struggle between the eastern establishment and westerners who lived in proximity to archaeological ruins. Since the 1880s, the two loosely defined groups had struggled for control of American prehistory; the Antiquities demonstrated a victory for the institutional and professional. The act heralded the end of openness in the West, replacing the actions of individuals with the decisions of institutions, an important shift in values.

**Rovner, Irwin (Binary Analytical)**[164] *Morphometric Analysis of Lithic Debitage: Exposing Patterns of Technology and Behavior*

Major obstacles to analysis of lithic debitage include an overwhelming number of objects recovered and chaotic morphological variation. Computer-assisted optical stereology (C.A.O.S.) can address these problems effectively. Two specific cases are presented: one a morphometric analysis of an excavated debitage assemblage; the other of two assemblages produced during replication experiments. Rapid processing of digitized objects, generation and assessment of morphometric data made possible several significant technological and behavior interpretations. In addition, it provided insights into improving both field recovery methods and design of replicative experiments.

Rovner, Irwin [164] see Gyulai, Ferenc; see Staller, John

**Rowe, Bob (TRC)**[106] *The Sneeze Heard 'Round the World: Disease and the Great Pleistocene Extinction*

Can humans armed with sticks and stones annihilate over one hundred species of mammals in a short period of time? Well, sort of - it wasn't the hunting that did these animals in; evidence now suggests it was disease pathogens. When humans arrived in the Americas, a plague was started than ran through the megafauna in a remarkably short period of time, causing a great die-off, but at the same time making room for other species. Using evidence from the southwest this paper will examine what these pathogens may have been and the impact on the plague on the American landscape.

**Rowland, Stephen (University of Nevada, Las Vegas) and Elizabeth Glowiak (University of Nevada, Las Vegas)**[51] *Evidence of Interactions between Paleoindians and Shasta Ground Sloths at Gypsum Cave, Nevada*

Shasta ground sloths (*Nothrotheriops shastensis*) are a conspicuous component of Rancholabrean faunas of the Southwest. However, there are no archaeological sites where these sloths have been documented to have been killed or butchered. As part of a museum-based study of material collected at Gypsum Cave in 1930, we have identified multiple examples of Shasta ground sloth bones that apparently record the activities of contemporary humans. Most conspicuous are two sloth metatarsals with distinct cut marks. These cut marks are exactly where an inexperienced butcher might cut to obtain a sloth claw and adjacent phalanges for a hunting trophy or talisman.

Rozas, Vicente [146] see Dirkmaat, Dennis

Rubin, David [141] see Fairley, Helen

**Rude, Trisha (University of Maine)**[145] *Paleoethnobotany at Stix and Leaves Pueblo, Colorado*

Stix and Leaves Pueblo is one of the only early PII sites excavated in the Mesa Verde Region of Colorado. Macrobotanical analysis of flotation samples from hearths and firepits of one roomblock showed that maize and weedy plant taxa dominated the assemblage. Charcoal identification indicated the local pinyon-juniper woodland was not deforested. Flotation samples from rooms and kivas were also compared. Sagebrush (*Artemisia tridentata*) achenes were concentrated in kivas, possibly indicating seasonal differences in kiva use or ceremonial use of sagebrush in kiva structures.

Ruiz, Alvaro [128] see Nelson, Kit

Ruscavage-Barz, Samantha (Community Solutions) [90] *Discussant*

**Rush, Laurie (US Army, Fort Drum) and Jim Cassidy (Colorado State University)**

[5] *Aquatic Mobility on the Glacial Great Lakes*

Late Pleistocene Paleo-Indian occupation of lands associated with the glacially formed Great Lakes is well established. However, paleo navigation of these highly saturated landforms remains largely unexplored. Although the use of watercraft during this time period is widely recognized along the Pacific Coast, it has yet to be systematically addressed for highly aquatic environments of the continental Northeast. The recent discovery of a specialized woodworking tool-kit located on the Pleistocene shoreline of Lake Iroquois suggests the possibility of bark canoe construction. This hypothesis is explored from the perspective of behavioral ecology and a technological analysis of the stone tool assemblage.

**Rushmeier, Holly [164]** *see Lenardi, Michael*

**Russ, John (Analytical Visions, Inc.) [164]** *Discussant*

**Russel, Nerissa (Cornell)**

[47] *Cooking Meat and Bones at Neolithic Çatalhöyük, Turkey*

Study of the animal bones from the renewed excavations at Neolithic Çatalhöyük in central Anatolia has shed light on the social contexts of meat and fat preparation and consumption. Different cooking techniques as well as different content distinguish daily and feasting meals. Marrow and bone grease preparation were important activities, and bone grease processing may have been a collective activity, accompanied by snacking.

**Russell, Matthew [36]** *see Davis, Mary Anne*

**Russell, Roly [71]** *see Huntly, Nancy*

**Ruth, Susan (University of New Mexico)**

[106] *Paleoindian Hide Working and Sexual Division of Labor*

Paleoindian studies have tended to focus on traditionally male activities such as hunting and weapons manufacture. Relatively little work has considered women's labor contributions. Paleoindian endscrapers are morphologically similar to hide-processing tools used by Native Plains and Alaskan women, suggesting that women that may have performed the bulk of this activity. Initial cross-cultural comparisons suggest that women tend to do the bulk of the hide working in societies that target large game. These observations, coupled with a behavioral ecological framework, suggest that generalizations regarding Paleoindian sexual division of labor in hide working may be possible.

**Ryan, Karen (University of Toronto) and Matthew Betts (Canadian Museum of Civilization)**

[9] *Straight Minds and Bowed Taboos: Material Culture and the Reconstruction of Dorset Social Ideology*

The Dorset culture (c. 2500-1000/500 B.P.) represents one of the most enigmatic populations to have inhabited the Arctic. The final representatives of a Palaeoeskimo tradition that first appeared in North America 4500 years ago, Dorset developed unique artistic and architectural traditions typically thought to have a primarily social and/or ideological significance. However, equally intriguing is the apparent abandonment of key ancestral technologies (including the bow and arrow) that strongly imply conscious social decisions. Using a structural approach composed of universal visual oppositions, we develop a hypothesis about both the origin and potential meaning of the unique attributes of Dorset material culture.

**Ryan, Susan (Crow Canyon Archaeological Center)**

[97] *The Transformation of Social Identity at the Albert Porter Pueblo Great House*

Albert Porter Pueblo was a large community center located in southwestern Colorado. Excavations at the Chaco-era great house indicate this building was remodeled, expanded, and used for approximately two centuries. The builders of the great house used architecture to convey aspects of their social identity, consisting of both Chacoan and local identities. Changes in architecture indicate that the social groups that occupied the great house and the activities that occurred there changed dramatically over time. These changes illustrate the interplay of structure and agency and a concern with maintaining community identity, even as that identity was transformed.

**Sagebiel, Kerry (University of Arizona)**

[108] *Explaining Stylistic Change in Northwestern Belize Late/Terminal Classic Ceramics: Migration, Drift, or Agency?*

It has long been recognized that the ceramic traditions of the Late Classic Maya diverged from the widely shared ceramic repertoire of the Early Classic. As the political hegemony of the old super-states broke down during the Late/Terminal Classic new political, social and artistic norms emerged. In Northwestern Belize new ceramic traditions developed including the glossy incised black wares of La Milpa and the resist wares of Ixno'ha. This paper will discuss whether these styles were purposefully developed as part of the symbolic repertoire of newly established elites, were introduced by migrants, or simply developed out of artistic drift.

**Sakaguchi, Takashi (Simon Fraser University)**

[14] *The Refuse Patterning and Behavioral Analysis in the Sea Mammal Hunting Camp in the Late Jomon Period*

Sea mammal hunters preferred the hearths located between bottom of the sand dunes for butchering, cooking, processing skins or for other purposes as their activity area, then discarded bones of Japanese sea lions on the slope of the excavated area where there was no feature. Analysis of conjoinable pottery within the excavated area indicates that artifacts were moved for cleaning the hearths and activity area. Although stone tools and pottery were discovered in the entire excavated area, the refuse patterning of animal bone, stone tools and pottery is variable and depends on the size and weight of the objects.

**Sakai, Sachiko (University of California, Santa Barbara)**

[75] *Change in the Clay Procurement in the Ceramic Production among the Highland Virgin Branch* In this paper, I will examine the evolution in ceramic production among the highland Virgin Branch Anasazi population in the Mt. Trumbull area of Northern Arizona. Using laser ablation ICP-MS on ceramic pastes, I investigate the number of clay sources used for locally made ceramics and its change in source use over time. I hypothesize that increasing storage and intensification of agriculture after A.D. 1000 may have fostered more communication among populations, which resulted in sharing technological knowledge such as clay source locations. Thus I expect less clay sources with only good quality to be used in later ceramics.

**Sakai, Sachiko** [75] see *Buck, Paul E.*

**Saleh, Heidi (University of California, Berkeley)**

[83] *Towards an Archaeology of Identity: A Case-Study from 1st Millennium B.C.E. Egypt* Egypt's rich archaeological record provides a seemingly ideal atmosphere to test theories on the archaeology of ethnicity. An Egyptologist is usually privileged to examine artifacts that are decorated with images, inscribed with text, and come from an excavated context. This study, which examines early 1st millennium B.C.E. funerary stelae, demonstrates the difficulties in examining the ethnic identity of individuals living in a relatively 'mixed' society during the 'Libyan Period' of Egypt. It is suggested that archaeologists move towards an archaeology of identity that considers all aspects of a person's character (gender, social status, and age) along with his/her ethnicity.

**Salisbury, Roderick (University at Buffalo)**

[38] *Agents in the Archaic: The Social Development of Ritualized Landscapes in Eastern North America*

Prehistoric human practices and actions using the landscape to assert identity and the material outcome of such are neither static nor random. The ritualization of landscape and development of burial ceremonialism during the Late Archaic and Transitional periods in the Eastern Woodlands of North America represent a deliberate social construction of landscape. As eastern North America becomes more widely accepted as a center of independent social innovation and complexity, it also becomes perceived as culturally isolated. Agency theory is employed to model an interactive amalgam where communities in proximity to each other will share ideologies and technologies regarding world renewal.

**Sammons, Dorothy** [60] see *Lohse, Skip*

**Sampson, Garth (Southern Methodist University) and Joe Saunders (University of Louisiana at Monroe)**

[80] *Do the Earliest Earthworks Coincide with the Onset of Mid-Holocene El Nino/ENSO Climatic Events? A Review of Current Evidence*

Hamilton (1999) proposes that early moundbuilding in the Mississippi bottomlands be linked to



the onset of El Niño-Southern Oscillation (ENSO) climatic events. Vacillating rainfall would cause uncertainty about year-to-year food supplies that in turn induced new stresses for local Archaic hunter-foragers. While links between stress and early moundbuilding activity are difficult to test, the timing of the two is not. We fit radiocarbon dates from early mounds to the fine-tuned Holocene record of El Niño frequencies from the Laguna Pallcacocha sediments in the southern Ecuador highlands. Covariance at several points in the early part of the record tends to support the model.

**Sanchez, Luis Alberto (Smithsonian Tropical Research Institute)**

[123] *Cerámica Pintada y no Pintada en el Gran Coclé: Comparación Diacrónica y Sincrónica de Contextos en Cerro Juan Díaz (Painted and Un-painted Ceramics at Gran Coclé: A Diachronic and Synchronic Comparison of Contexts at Cerro Juan Díaz)*

Estudios en la cerámica funeraria tienen mayor énfasis en aquella alfarería pintada al aportar datos sobre ideología y rango social. Comparando entre una muestra de contextos funerarios de Cerro Juan Díaz entre 300 a 1450 d.C con depósitos domésticos coetáneos, documentamos similitudes y diferencias respecto a la selección de determinadas categorías y rasgos morfológicos y estilísticos, y aspectos tecnológicos. La comparación muestra la abundancia de la alfarería policroma en la fase anterior al 750 d.C. en cualquier tipo de contexto, y la relativa poca importancia de este tipo de vasijas en los contextos mortuorios de las fases posteriores. (Studies of funerary ceramics interested in ideology and social rank usually emphasize painted pottery. A comparison of funerary contexts at Cerro Juan Díaz dated between 300 and 1450 A.C. with synchronic domestic deposits, documents similarities and differences concerning the selection of certain morphological and stylistic categories and technological aspects. This comparison highlights the abundance of polychrome pottery in all contexts dating before 750 A.C., and their poor representation in mortuary contexts from later phases.)

**Sanchez, Luis Alberto [123] see Martin, Juan Guillermo**

**Sánchez, Guadalupe [145] see Martínez, Natalia**

**Sanchez Vargas, Mirna [72] see Medina Martin, Cecilia**

**Sanchez-Goñi, Maria-Fernanda [44] see d'Errico, Francesco**

**Sanderson, David [144] see Stark, Miriam; see Bishop, Paul**

**Sandgathe, Dennis (Simon Fraser University), Harold L. Dibble (University of Pennsylvania), Shannon P. McPherron (Max Planck Institute) and Alain Turq (Musée National de Préhistoire)**

[93] *New Excavations at the Middle Paleolithic Site of Roc de Marsal (France)*

The Middle Paleolithic cave site of Roc de Marsal (Dordogne, France) yielded the remains of a Neandertal infant (thought to represent an intentional burial) and in overlying layers a rich Quina Mousterian industry associated with a well preserved faunal assemblage. The site was excavated by Jean Lafille, an amateur archaeologist, during the 1950s and 60s and is incompletely published and undated. This poster reports on the results of the first season of excavation by a new collaborative project aimed in part at clarifying the chronological and sedimentological history of the sequence including the skeletal remains.

**Sandoval, Harriet [74] see Tsosie, Neomie**

**Sandweiss, Daniel H. (University of Maine)**

[30] *Early Maritime Adaptations in Western South America*

Through the 1960s, archaeologists working in western South America generally believed that extensive and intensive use of marine resources began late in the Middle Holocene. Beginning in the 1970s, new data from Chile and Peru pointed to an earlier onset of maritime adaptations in the region. Pre-5800 cal BP dates for fishing sites continued to appear through the 1980s, and the late 1990s several sites (particularly Quebrada Jaguay and Quebrada Tacahuay in southern Peru) demonstrated conclusively the presence of sophisticated fishing groups in the Terminal Pleistocene. This paper reviews the history and synthesizes the current state of knowledge concerning early maritime adaptations in the region, and points to some implications of these new data.

**Sandweiss, Daniel H. [49] see Rademaker, Kurt [119] see Reitz, Elizabeth J.**

**Sanhueza, Lorena [49]** *see Tykot, Robert*

**Sappington, Robert (University of Idaho), Julie-anna Rodman (University of Idaho) and Kevin Cannell (Nez Perce Tribe)**

[36] *Results of Recent Investigations at Two Late Prehistoric Sites Along the Clearwater River, North Central Idaho*

Data recovery was recently conducted at two sites near Greer prior to the construction of a highway passing lane. The sites are located ca. 1.5 km apart but are similar in terms of their settings and other characteristics. Both sites include a variety of flaked and ground lithic tools, fire-modified rocks, faunal remains, and other items. Numerous projectile points suggest occupations dating to the late prehistoric Ahsahka phase (ca. 3000-500 BP) and multiple radiocarbon dates from features are pending. Ongoing analyses indicate that the Greer locality was used for hunting and processing mammals, lithic tool manufacture, and other activities.

**Sappington, Robert [36]** *see Rodman, Julie-anna; see Ridenour, Dora*

**Sassaman, Kenneth E. (University of Florida), Kara A. Bridgman (University of Florida) and Asa R. Randall (University of Florida)**

[151] *Paleoindian to Archaic Transition in South Atlantic Slope*

The Pleistocene-Holocene transition in the South Atlantic Slope was marked by a series of technological and land-use changes in conjunction with megafauna extinctions and an increasingly temperate and wet landscape. Continuity in unifacial technology through the Early Holocene attests to Clovis ancestry, while variations in biface industries signal emergent subregional populations. Functionally differentiated land use is evident in an advanced level of Interassemblage variation. Among the distinctive site types are the first cemeteries of the Holocene, notably Florida's pond burials. Other subaqueous sites in the region register settlement in locations quickly flooded by rising sea and aquifer levels.

**Sassaman, Kenneth E. [8]** *see Randall, Asa R.*

**Saul, Frank (Lucas Co. Coroner (OH) and Wayne Co. ME (MI) Offices) and Julie Saul (Lucas Co. Coroner (OH) and Wayne Co. ME (MI) Offices)**

[50] *Forensics, Archaeology, and Taphonomy: The Symbiotic Relationship*

Henry Lee said 'Forensic science is used to predict, not the future, but the past' - a mission that is shared with archaeology. The practitioners of both disciplines must carefully observe and document as they proceed, because evidence collection itself changes the 'scene.' Studying both ancient and modern skeletal remains is an educational two-way street and also a reality check. Taphonomic knowledge is basic in the recovery and interpretation of both past and present remains. Working in both arenas can be symbiotic and even synergistic, as we hope to show with examples from our Maya research and forensic cases.

**Saul, Julie (Lucas Co. Coroner (OH) and Wayne Co. ME (MI) Offices), Lauri Thompson (University of Texas, Austin) and Brandon Lewis (Santa Monica College, CA)**

[108] *A Classic Maya Crypt Burial at Dos Barbaras: Painfully Obtained Clues to a Painful Past*

Maya skeletal preservation is notoriously poor due to climate and aggressive vegetation. Osteobiographic information needed to reconstruct issues of health, status, and activity may be unobtainable. Occasionally, some rock shelter, tomb, and crypt burials allow preservation that provides valuable cultural and biological information. Although excavation was difficult (conducted upside down), excellent preservation in a crypt burial of a minor elite at the northern Belize site of Dos Barbaras (PfBAP) permitted in situ examination, osteological analysis, and documentation, including burial position. Pathologic vertebrae could not be removed intact, emphasizing the importance of excavation and in situ observations by experienced biologic anthropologists.

**Saul, Julie [50]** *see Saul, Frank*

**Saunders, Joe [80]** *see Sampson, Garth*

**Savelle, James (McGill University) and George Wenzel (McGill University)**

[140] *Optimization Approaches to Contemporary Inuit Beluga Whale and Narwhal Harvesting*

Contemporary Canadian Inuit beluga whale and narwhal hunting, while employing modern technology and subject to external economic influences, nevertheless takes place within the context of traditional hunter-gatherer socioeconomic relationships. In this paper, we focus on two

aspects of these relationships from the perspective of optimization behavior: 1) the manner in which whaling-related logistical systems are adjusted according to prey physical and behavioral characteristics, and 2) the economic rationale for relatively high cost: high risk activities. The implications of this study in the investigation of prehistoric hunter-gatherer large-mammal harvesting are then discussed.

**Savery, Heidi [127]** *see Dalton, Ronald*

**Sawyer, Andrew (Dayton Society of Natural History)**

[10] *From Excavation to Reconstruction: Interpreting a Reconstructed Prehistoric Village for the Modern Public*

SunWatch Indian Village/Archaeological Park in Dayton, Ohio is an in situ partial reconstruction of a Native American village dating to the Fort Ancient period. The reconstruction includes five lathe and daub structures with grass thatch roofs, portions of a stockade and a native garden and prairie with plants typical of the period. Inferred astronomical alignments originate from a complex of posts at the center of the village. The interpretive development of the site is due in large part to cooperation between amateur and professional archaeologists, as well as the local communities and the city of Dayton.

**Sayre, Matthew (University of California, Berkeley)**

[145] *Paleoethnobotany at Chavin de Huantar, Peru*

The highland Peruvian site of Chavin de Huantar (ca. 3000-2500 BP) has long been considered the marker of the Early Horizon in the Andes. The iconography of Chavin is rich in phyto-imagery; this evidence led early researchers (Coe 1962; Katz 1972; Lathrap 1973) to postulate that the site may have occupied a crucial role in the early dispersal/ceremonial use of maize, hallucinogens, and other lowland plants. Multiple lines of evidence (macro-botanical, phytolith, and starch grain analysis) are being brought to bear on these issues and should help resolve contested viewpoints about the nature of the site.

**Sayre, Matthew [160]** *see Rosenfeld, Silvana*

**Scarborough, Vernon (University of Cincinnati) [144]** *Discussant*

**Scardera, Francis (Colorado State University)**

[124] *Earthworks in Jefferson County, New York: The Evidence Mounts*

In 2003, the use of a holistic archaeological approach led to the rediscovery of one of Ephraim Squier's earthworks, recorded in 1849, on what is now Ft. Drum, New York. This paper attempts to incite a renewed interest in re-locating other earthworks in the Jefferson County area. Newly discovered historical documents, aerial photos, and an evaluation of previous archaeological survey methods are examined. The reliability of oral accounts is also assessed. In addition, special attention is given to the use of ground penetrating radar and resistivity surveying as methods to assist in defining the perimeters of the site where the earthwork is no longer visible on the surface.

**Schaafsma, Curtis (Retired) and Polly Schaafsma (Museum of New Mexico)**

[154] *Gwinn Vivian - The Early Years: Chaco to the University of New Mexico*

Gwinn Vivian is a well-known figure in American archaeology. His best-known research is centered in Chaco Canyon, a place in which he had the unusual good fortune to live throughout his early life-privileged years that shaped his career as an archaeologist. This presentation addresses Gwinn's life at Chaco through his early graduate student years at the University of New Mexico. UNM's Pottery Mound field school, the Anthropology Club, and weekend trips to Chaco were highlights for those of us who knew Gwinn during the late 1950s and for whom he inspired our own pursuits in archaeology.

**Schaafsma, Polly (Museum of New Mexico)**

[15] *The Pottery Mound Murals and Pueblo IV Rock Art: The Broader Iconographic Context*

The elements and figurative symbolic complexes of the Pottery Mound murals are reviewed, and a comparison is made between the murals and Pueblo IV rock art. A Rio Grande context, as opposed to a Western Pueblo origin, for mural style and contents is strongly indicated, but no particular Eastern Pueblo linguistic regional relationships are suggested on the basis of the geographic distribution of specific icons. In addition, Eastern Pueblo iconography in the Hopi murals and Sikyatki mural paintings at Pottery Mound are indicative of the dynamic cultural exchanges characteristic of Pueblo IV.

**Schaafsma, Polly (Museum of New Mexico) [154]** *see* Schaafsma, Curtis

**Schaan, Denise (Museu Paraense Emílio Goeldi)**

[156] *The Tropical Chiefdom: Water Management, Fish Farming, and the Development of Social Complexity on Marajó Island*

Marajó Island is known by its harsh climate, characterized by periods of continuous rains and extended floods, followed by extremely dry months, with damaging effects on soils and vegetation. Even though, aboriginal populations managed this particular environment in order to enhance their subsistence, by damming the rivers, constructing fishponds, and building elevated villages. The mound builders of Marajó Island were organized in small hierarchical chiefdoms, ruled by kinship groups who controlled the economy and ceremonial life. In investigating the Camutins chiefdom, the author offers an ecological-economic model to explain the emergence of social complexity on the Island.

**Schachner, Greg (Arizona State University)**

[97] *Placing Communities in Time: Exploring the Chronology of 13th Century Cibola Settlements*

Temporal variation in settlement practices is a basic indicator of differences in community structure and identity. Individuals and groups have diverse expectations of their own period of residence and overall community permanence. Their goals color how communities are constructed, maintained, and renewed. To explore how these expectations shape community structure and identity, I compare temporal patterns in a number of Cibola communities occupied in the 13th century AD. This investigation focuses on key dimensions of variation, including the fluidity of the social landscape, the creation and use of socially important places, and the temporal depth of community histories.

**Schaefer, Jerry (ASM Affiliates, Inc.)**

[67] *Archaeological Evidence of Shamanic Practice and Culture Change among the Cahuilla of the Coachella Valley, California*

The shaman held a critical role in Cahuilla society through his powers to control weather, natural resources, and disease. Both revered and feared, his elite status was achieved through public ritual demonstrations of power, curing or causing sickness, and other manifestations critical to economic, socio-political, and religious affairs. Primary archaeological contexts in the Coachella Valley, including shamanic caches and mortuary features, represent rare and poignant illustrations of cultural continuity and disruption of shamanic traditions. They reflect the shaman's inherently tenuous position during the tumultuous period of mid-19th century epidemics and Euro-american cultural intrusion.

**Scham, Sandra (ASOR, Catholic University) [110]** *Discussant*

**Scharf, Elizabeth (University of North Dakota)**

[95] *Environmental Records and Human Ecology: Evaluating Records from the Yazoo Basin, Mississippi*

This poster will present preliminary sediment work on lake cores from the Yazoo Basin of Mississippi, to evaluate the usefulness of these records in reconstructing an ecological history for the area over the past 500 to 1,000 years. This particular area is of interest because it had a dense prehistoric population, was abandoned at Contact, and was only later populated with non-native peoples. This research locale has the potential to reveal much about prehistoric land use practices through the response of vegetation to the cessation of human disturbance activities in the area.

**Scheer, Howard [89]** *see* Whallon, Robert

**Scheick, Cherie (Southwest Archaeological Consultants)**

[154] *Lessons from Gwinn: The Potential of Public Archaeology*

Gwinn helped establish the framework for public archaeology, moving it by mentoring and teaching from salvage archaeology to what it is today. For his students and protégés, Gwinn not so much shaped our research as he helped shape who we are as archaeologists and what we became as professionals. His legacy to us continues to be moving beyond what we were taught, looking at things as individuals, and always thinking within a larger context. Through these papers, we hope to provide insights into the scope and breadth of his influence, measured by our divergent career paths and geographical and intellectual foci.

**Scheinsohn, Vivian (INAPL/CONICET), Cristina Bellelli (INAPL/CONICET), Mercedes Podestá (INAPL), Mariana Carballido (INAPL/CONICET) and Pablo Fernández (INAPL/Fundación Antorchas)**

[156] *Rocking in Patagonia: Rock Art, Tourism and Community*

Archaeological research in Comarca Andina del Paralelo 42° (NW Chubut Province and SW Río Negro Province, NW Patagonia, Argentina) began in 1995. One of the concerns of this research was to record and preserve rock art sites. Since a decade ago, tourism has increased, jeopardizing many rock art sites. Then, we have implemented a specific research project in order to contribute to the sustainable touristic exploitation of these sites. In so doing, we have developed archaeological and anthropological research to elaborate management plans jointly with the community. We present five study cases and their different results.

**Schieppati, Frank [38]** *see Hayward, Michele*

**Schiffer, Michael (University of Arizona) [126]** *Discussant*

**Schlader, Robert [60]** *see Lohse, Skip*

**Schlanger, Sarah (Bureau of Land Management)**

[139] *Building the Ancestral Pueblo World: Demographic Underpinnings and Experiences*

The development of settled communities on the Colorado Plateau occurs within a larger context of considerable demographic change. Populations engaged in numerous colonization efforts, settled some regions at densities approaching the peak that would be seen prehistorically, aggregated in villages nearly as large as any ever built locally, and participated in both regional and local abandonment episodes. This overview explores the demographic underpinnings of this profound transition, and outlines what may have been the demographic experiences of the populations involved: high rates of internal growth and in- and out-migration, and extreme flux in population size, structure, and permanence.

**Schleher, Kari (University of New Mexico)**

[104] *Standardization in Pottery: An Ethnoarchaeological and Archaeological Comparison*

Standardization has been used as an indicator of specialization of ceramic production in archaeological contexts, but its validity as an indicator of specialized production continues to be debated in ethnographic contexts. In addition, most ethnographic studies address specialization and standardization in complex, state-level or market based societies. Although examined by some, the role of standardization in less complex, middle-range societies has rarely been a focus of study. In this research, I examine this problem by comparing morphological standardization of ceramics from cross-cultural ethnographic groups to southwestern US and state level archaeological groups.

**Schlesinger-Guidelli, Thomas (Kenyon College) and Patricia A. Urban (Kenyon College)**

[129] *Manipulating Clay: A Modern Potter and His Ancient Counterparts*

During 2004, PVC staff mapped clays around Las Canoas, located in the lower Chamelecon drainage. Using these, we worked with a contemporary potter to record clay recipes, processing methods, vessel shaping, and firing practices. We then systematically developed clay recipes, shaped vessels, and experimented with firing. We learned that ancient potters likely mixed clays in the Classic period, but relied on relatively unprocessed materials in the Postclassic. While no firing facilities were found at Las Canoas, experiments suggest that they would have been required for thin-walled Classic period vessels, while open-pit firing could have served for Postclassic pots.

**Schmidt, Kari (UNM/Los Alamos Nat'l Lab)**

[56] *The Faunal Assemblage from McEuen Cave, Southeastern Arizona*

Archaeological testing at McEuen Cave, a dry residential rockshelter in southeastern Arizona, yielded 23 animals dating between 3491 and 4360 radiocarbon years (RCY) B.P., a time during the Late Middle Archaic period in the southern Southwest. These excavations produced a large collection of faunal remains, and analyses and results are presented. The assemblage is dominated by cottontails and jackrabbits (60%) and artiodactyls (20%), with fewer rodents, fish, birds, reptiles, and carnivores. The presence of various taxa in the assemblage suggests that the inhabitants of the rockshelter used a broad spectrum of resources from woodland, riparian, and desert grassland habitats.

**Schmidt, Kari M. [69]** *see Nisengard, Jennifer E.*

**Schmitt, Dave (Desert Research Institute) and David Madsen (University of Texas)**[88] *Early Holocene Occupation of the Old River Bed Delta, Western Utah*

During the last regressive phase of Pleistocene Lake Bonneville, a major river connected lakes in the Sevier and Salt Lake basins and formed an extensive delta. As lake levels continued to drop, this delta pro-graded and developed into a vast wetland. After -11,000 14C years BP, Paleoarchaic foragers began to occupy this ecosystem and continued to do so until 8700 BP. Nearly 100 of an estimated 500 Paleoarchaic sites have been recorded in the delta. Most are linear artifact scatters along inverted sand and gravel channels that provided elevated camp sites and access routes, while others consists of diffuse scatters on the adjacent mudflats. Numerous forms of Great Basin Stemmed points occur, but the principal tools apparently were simple basalt flakes struck from large bifaces. Movement within this large wetland may have been frequent, but reworking of tools and limited toolstone diversity suggests moves away from the delta were less frequent than elsewhere during the Great Basin Paleoarchaic.

**Schneider, Joan (University of California, Riverside)**[109] *Quartzite Tools and Agave Processing in the Colorado Desert*

Quartzite tools are commonly found in proximity to processing features and roasting pits thought to have been used for agave preparation in the Colorado Desert of California. Recently, quartzite tools were replicated and used for agave processing: preparing agave heads for pit roasting, pounding and scraping cooked agave to dry for storage, and making fiber for cordage. The replicated tools worked extremely well; use-wear patterns closely matched archaeological tools. Quartzite cobbles, readily available in most drainages, were likely used for casual tools for most of the prehistoric past and up to the contact period.

**Schneider, Joan S. [35] see Warren, Claude N.**

**Schneider, Tsim (University of California, Berkeley) and Lee Panich (University of California, Berkeley)**[114] *Public Interaction as "Culture Contact"*

The Fort Ross Archaeological Project is a collaborative and on-going research project in northern California between the Kashaya Pomo, archaeologists, and state park officials. An interpretive trail is being developed that will tour prehistoric and historic archaeological sites that highlight Kashaya Pomo culture history. Drawing on visitor responses to guided tours of the proposed trail, this paper examines culture contact studies from the perspective of public interpretation. We will specifically address the following: public interest in local (pre)history, the redefinition of terms specific to culture contact research, and the role of archaeologists as mediators between cultural resources and park visitors.

**Schoeninger, Margaret [25] see Kellner, Corina**

**Schofer, Jeanne (Northern Arizona University)**[98] *Technological Differentiation of Pueblo IV Period Ceramics in the Forestdale Valley*

Ceramic temper analyses offer archaeologists insights into technological changes, exchange, and migration, providing alternatives to typologies based on decorative design. This paper examines technological differentiation of Pueblo IV period ceramics in the Forestdale Valley, on the Fort Apache Indian Reservation, through the analysis of ceramic inclusions. Results suggest a distinctive, homogeneous technology in local plain ware ceramics, but a diversity of paste recipes in the decorated ceramics. The implications of these patterns for understanding identity and interaction in a period of migration and rapid aggregation are explored.

**Schollmeyer, Karen Gust (Arizona State University), John Briggs (Arizona State University), Keith Kintigh (Arizona State University) and Katherine Spielmann (Arizona State University)**[69] *Legacies on the Landscape: Integrating Ecology and Archaeology on the Agua Fria National Monument, Arizona*

Researchers in ecology and archaeology are increasingly aware that ecosystems observed today are the outcomes of long histories of inextricably linked human and ecological processes. Here, we combine approaches from both disciplines to investigate the ecological and social conditions under which human land use results in long-lasting transformations of ecosystem structure and function. We examine the legacy of prehistoric (A.D. 1250-1450) agricultural activities on the present-day Agua Fria National Monument. A strong emphasis on interdisciplinary collaboration in all stages of research combines ecological understandings of desert grassland ecosystem structure and function with archaeology's long-term view of human land use.

**Scholnick, Jonathan (University of Arizona)**

[48] *Local Production and Interregional Circulation of Cibola White Ware during the Pueblo IV Period Reorganization*

During the thirteenth century, there was a dramatic population reorganization taking place in the Silver Creek and neighboring regions of east-central Arizona. In some cases communities became increasingly aggregated while others migrated out of the region. The large compositional database of decorated ceramics assembled by multiple researchers is used to characterize the circulation of pots within this region and to provenance pots found in adjacent regions. This study examines the production and consumption of Cibola White Ware within the Silver Creek and in neighboring regions to understand aspects of the reorganization.

**Schondube, Otto [149]** *see* Liot, Catherine

**Schortman, Edward [38]** *see* Ausec, Marne

**Schortman, Edward M. (Kenyon College) and Patricia A. Urban (Kenyon College)**

[129] *Where It All Began: Middle Preclassic Occupation in the Lower Cacaulapa*

Excavations at Site 120, overlooking the confluence of the Cacaulapa and Chamelecon rivers, uncovered evidence of Middle Preclassic (800-400 BC) earthen mounds obscured by Late Classic construction. Analyses of architecture, radiocarbon samples, and artifacts help reconstruct the timing and nature of cultural developments along the Cacaulapa and relate them to patterns emerging from research in surrounding areas. What these finds mean for our understanding of this little-known period in SE Mesoamerica is also reviewed.

**Schou, Corey [60]** *see* Lohse, Skip

**Schreg, Rainer [93]** *see* Fisher, Lynn

**Schreiber, Laura L. (Indiana University)**

[2] *Bison Acquisition and Butchering on the North American High Plains*

Decades after it was established that bison were a key component in subsistence strategies for thousands of years on the Plains, researchers continue to show that the level of dependence on bison varied through time and space. In this paper, I discuss the relationship between bison acquisition and butchering intensity at a Late Prehistoric multiple component site in northeastern Colorado. I compare minimum number of animals, average size of butchered bison bone elements, quantity of crushed bone fragments, and season of occupation over the course of several hundred years to examine form and variation in hunting and processing strategies.

**Schriever, Bernard (University of Oklahoma)**

[158] *Evaluating the Gendered Division of Labor in Mimbres Households at a Late Pithouse Period Short-term Residential Occupation*

In this paper, I investigate the gendered division of labor at the Florida Mountain Site, a Mimbres Late Pithouse period short-term residential site occupied by households. In evaluating Murdock and Provost's (1973) cross-cultural normative divisions of labor by gender in light of regional ethnographic and archaeological evidence, clear normative associations between tasks and gender are difficult to identify for Mimbres peoples. The material correlates for one male task and one female task are represented in the site assemblage. While limited, the results suggest that this approach can yield insight into group composition and organization at sites of limited occupational duration.

**Schroeder, Sissel (University of Wisconsin)**

[135] *Tempering the Inferential Potential of Ceramics: Ethnoarchaeology and its Relevance for Mississippian Studies*

In the midcontinental United States, analyses of ceramic assemblages from prehistoric contexts often are dominated by frameworks that incorporate typologies, stylistic descriptions, and attribute measurements, which rarely are tied to specific problems. The influence of ethnoarchaeology on these studies has been muted, and yet the analysis of ceramic assemblages in this region could further benefit from ceramic ethnoarchaeological research conducted in other parts of the world. The usefulness of ceramic ethnoarchaeology, especially as it relates to assemblage formation and the parsing of site occupation history, is explored for a Mississippian-era (c. A.D. 1000-1500) village in western Kentucky.

**Schula, Peter [138]** *see* Smith, George

**Schultz, Elizabeth (Binghamton University)**

[124] *Investigating Plant Distributions at a Multi-Component Occupation and Burial Site in South Central New York*

Archaeologists at Binghamton University have recently examined macrobotanical remains from the Engelbert site, a Late Woodland and protohistoric occupation and burial site in south central New York, with the intention of investigating whether certain plants were deposited more frequently in burial versus non-burial contexts. Preliminary results indicate that a variety of plants (maize, beans, hackberry, nut, *Chenopodium*, *Rubus*) were used by the occupants, and that certain plants, such as *Rubus*, may have been more frequently deposited in burials. Examining such synchronic or diachronic differences in plant distributions can further our understanding of belief and subsistence systems in prehistoric New York.

**Schultz, Jason (The Electronic Frontier Foundation) [61]** *Discussant*

**Schurr, Mark R. [93]** *see* Cable, Charlotte; [80] *see* Greenlee, Diana M.

**Schuyler, Robert (University of Pennsylvania) [63]** *Discussant*

**Schuyler, Robert L. (University of Pennsylvania) and Dale L. Berge (Brigham Young University)**

[63] *Laie Plantation Sugar Mill, Oahu, Hawaii: Mormon Survival in the Pacific*

The community of Laie, originally a plantation, is located on the north windward (eastern) shore of Oahu, Hawaii. The plantation was purchased by the Mormon Church in 1865 to provide a place where converted native Hawaiians could assemble. Relocating the location of the plantation's sugar mill took considerable effort. Through the use of a navigational map, photographs, a painting, and other documents, the general location was established. Trenching soon revealed foundations, and subsequent excavation exposed part of the mill floor, an indoor well, and several other features. No machinery was left in the mill and artifacts were few in number.

**Schwarcz, Henry [73]** *see* Webb, Elizabeth

**Schwarz, Kevin (Southern Illinois University, Carbondale)**

[91] *Intensification of Ancestor Veneration: An Alternative Explanation for Classic to Postclassic Changes in Petén Maya Domestic Architecture*

The problem of interpreting the Classic to Postclassic (A.D. 700-1200) transformation of domestic architecture in Central Petén, Guatemala has led several researchers to hypothesize that Maya or foreign immigrants brought new house designs with them, specifically C-shaped masonry bench forms and central altars. However, based upon recent excavations, I suggest that in the Quexil-Petenxil Basins, local Maya populations maintained continuity. Architectural change in house design relates more closely to changing family organization and changes in bench-altars are interpreted as intensified displays of ancestor veneration. These changes are an active negotiation of local, rural communities to political change brought about by the Maya collapse.

**Schwarz, Kevin [118]** *see* Mount, Jerry

**Schweitzer, Robert (SWCA, Inc. Environmental Consultants)**

[105] *Comparing and Contrasting Settlement and Subsistence Patterns from Two Protohistoric Period Sites in the Escalante Desert, Utah*

During the summer of 2002, excavation of numerous sites along the Kern River 2003 Expansion Project included two Protohistoric period sites, 42WS1460 and 42WS1579, outside St. George, Utah. The utilization of alternate mitigation strategies resulted in studies focused on obtaining data that were applied to regional and site-specific models regarding Protohistoric Period occupations. Through the application of numerous analytical methods, multiple threads of evidence are used to create a context for the occupations at the two sites. This paper presents the results from the mitigation program undertaken for the two Protohistoric Period cultural resource sites, 42WS1460 and 42WS1579.

**Scott, Clark [36]** *see* Pace, Brenda

**Scott, John (University of Florida)**

[54] *Human Sacrifice in the Iconography of Veracruz Ballgame Sculptures*

Stone carvings associated with the Mesoamerican ballgame found in Veracruz State of Mexico



contain numerous representations of human sacrifice and death, often in quite specific detail. My paper will examine the nature and context of these sacrifices, beginning with Formative yuguitos, Early Classic full head hachas, Late Classic thin hachas and relief yokes, and culminating in Early Postclassic palmas and architectural reliefs.

**Scott, Rachel E. (University of Pennsylvania)**

[100] *The Gendered Life Course in Early Medieval Ireland*

This paper investigates the cultural narrative of aging in early medieval Ireland. Recent bioarchaeological research has emphasized that age is not simply a biological fact but also a cultural construction. The physiological changes associated with aging are understood culturally as a succession of life stages, each with its own set of social meanings. Multiple factors can influence the stages through which a person passes. Here, I focus on gender. Using evidence from historical documents, human skeletal remains, and burial practices, I reconstruct the gendered life course of early Irish women and men.

**Searcy, Michael (Brigham Young University)**

[60] *Throw out the Paper and Pencil: Recording Data Digitally in the Field with Tablet PCs*

Methods by which archaeological sites have been mapped and recorded over the past century, in several aspects, have gone unchanged. Technology is now available that can make the recording of sites and its artifacts more efficient and affordable. This paper focuses on how Tablet PCs (laptop computers with pen-based technology) can alleviate the time and money spent on digitally redrawing pencil and paper maps, creating electronic databases, and scanning photographs that are traditionally digitized from paper-printed photos. I also outline what types of Tablet PCs can successfully hold up to the rugged conditions faced in archaeological fieldwork.

**Sebastian, Katherine** [39] *see Silliman, Stephen*

**Sebastian, Lynne (SAA President)** [132] *discussant*

**Seddon, Matthew**

[105] *Development and Application of a Relative Obsidian Hydration Chronology for the Southeastern Great Basin*

Obsidian hydration analysis has tremendous potential to provide chronological information to otherwise non-diagnostic archaeological sites and components. The Kern River 2003 Expansion Project included refining a previous relative hydration chronology for the region as a mitigation effort. This paper presents the relative hydration chronology revised using a database of sourcing and hydration data from more than 350 obsidian projectile points from the Wild Horse Canyon, Black Rock Area, and Panaca Summit/Modena sources in the southeastern Great Basin. The chronology is then applied to several sites in the region to demonstrate the utility of the approach.

**Seeger, Jon (University of Utah)** [80] *Discussant*

**Seidel, Andrew (Oberlin College)**

[98] *Kicking Duff and Taking Notes: The SCARP Surveys of the Forestdale Valley*

Over the past three years, the Silver Creek Archaeological Research Project (SCARP), cooperating with the White Mountain Apache Tribe, has conducted a full coverage survey of the Forestdale Valley. Designed primarily to relocate sites recorded by Emil Haury during his initial survey of the area in the 1930's and to provide the Tribe with an idea of the archaeological resources present in the valley, the SCARP survey nearly quadrupled the number of known archaeological sites in the survey area. Upon analysis, this new influx of site data could prove invaluable in studying the occupational patterns of the Mogollon Rim region.

**Seifert, Donna (John Milner Associates)** [65] *Discussant*

**Sellers, Richard (National Park Service)**

[122] *The Antiquities Act in the Context of its Times*

The Antiquities Act of 1906 was passed soon after Congress, in the 1890s, established five national military parks at Civil War battlefields. These acts which authorized the purchase of huge tracts of private lands constituted by far the national government's strongest commitment to historic preservation to that date. The Antiquities Act focused on archeological preservation in the Southwest; three weeks after the Antiquities Act passed, Congress established Mesa Verde National Park. Motivations for setting aside these important cultural sites in the East and the Southwest reflected commonly held convictions regarding the public good and the importance of cultural resource preservation.

Selvakumar, V. [14] *see Abraham, Shinu*

Sepulchre, Pierre [44] *see d'Errico, Francesco*

**Sergeyeva, Marina, T. J. Ferguson (Anthropological Research, LLC) and Molly Proue (University of Arizona)**

[98] *Filling Holes Rather than Digging Them: A New Approach for Field Schools Involving Assessment of Damage at Vandalized Sites*

This paper focuses on the research and teaching activities involved in the assessment of damage at vandalized sites in the Forestdale Valley, Fort Apache Indian Reservation. The methods of data recovery, analysis of artifacts, and determination of archaeological value are discussed with respect to professional standards promulgated by the SAA. The benefits of this research include teaching professional skills, improving the image of archaeologists working on Indian lands, and providing the White Mountain Apache tribe with information it needs to better manage heritage resources.

**Serra Puche, Mari Carmen (Coordinación de Humanidades-UNAM) and Jesús Carlos Lazcano Arce (Escuela Nacional de Antropología e Historia)**

[149] *Actividades Productivas Durante el Formativo en el Sitio de Xochitécatl-Cacaxtla-Nativitas (Productive Activities at the Xochitécatl-Cacaxtla-Nativitas Site during the Formative)*

En esta ponencia se expondrán las actividades productivas que se han identificado en el sitio de Xochitecatl-Cacaxtla-Nativitas que durante el Formativo medio se realizaron. Se hará énfasis en aquellas que tiene que ver con la explotación agrícola y con la utilización de huesos de animal para la producción de instrumentos. Asimismo se darán las características más sobresalientes de las unidades habitacionales, esto como una actividad comunitaria y productiva. (The productive activities identified at the Xochitécatl-Cacaxtla-Nativitas site for the middle Formative will be introduced, emphasizing activities related to agricultural exploitation and the use of animal bones for the production of tools. Also, information on the use of habitation units as centers for productive and communal activities will be presented.)

**Serra Puche, Mari Carmen [149] *see Hirth, Kenneth***

**Setzer, Teddi (University of South Florida), Robert Tykot (University of South Florida) and Gary Webster**

[93] *Obsidian Use During the Bronze Age: An Experimental Study of Obsidian Artifacts from Duos Nuraghes, Sardinia (Italy)*

Experimental archaeology is a key way to learn about the lives and culture of prehistoric people. This study uses experimental archaeology to investigate the function of obsidian at the site of Duos Nuraghes, Sardinia, which was occupied during the Bronze Age Nuragic culture. In addition to ceramic jars, vessels, and metal tools, hundreds of pieces of obsidian were recovered from this site. This research provides not only information about topics such as subsistence, trade, technology, and craft specialization, but it also demonstrates the purpose of this lithic material during the transition to metal tools.

**Sever, Thomas (NASA/MSFC/NSSTC) [12] *Discussant***

**Seymour, Deni J. (Dos Locos Consultores, LLC)**

[158] *Material Culture Consequences of Kinship and Residence Patterns in the Protohistoric Southwest*

The effects of post-marital residence rules on pottery production illustrate how the social roles of women shape the protohistoric archaeological record. Because bilateral kinship is reckoned with substantial depth, Upper Piman women had to take husbands of other naciones (Plains nomads and Apache), unable to find a spouse within their own small group. With transmission of technological knowledge occurring within the husband's household a high degree of variability was introduced into pottery production. Yet, consistencies in the formalized arrangement of intramural space were maintained and two parallel lithic technologies prevailed.

**Seymour, Gregory (HRA Inc., Conservation Archaeology)**

[35] *Rock Rings and Cleared Circles - Yesterday and Today*

From the earliest days of archaeological research, rock rings and cleared-circles, have stimulated archaeologist's interest, despite frustrations determining the feature's antiquity, cultural affinity, and function. This paper reviews some of the pioneer archaeologist's research on rock ring

morphology and affinity. This early research is contrasted with recent efforts at understanding function and spatial distribution on a landscape level.

**Shackley, M. Steven** [124] *see Dillian, Carolyn*

**Shackley, Steve (University of California, Berkeley)**

[56] *Chronometry and Geochemistry at McEuen Cave: The Radiocarbon and Obsidian Geochemical Data*

Forty-eight AMS radiocarbon dates were derived from McEuen Cave during the two field seasons including the largest single suite of AMS dates on cultigens from the Southwest. This presentation of the sampling strategy and provenience of the suite of AMS radiocarbon dates from all contexts at McEuen Cave will also include the results of the large source provenance study (>300) of obsidian artifacts recovered from the rockshelter. The data presentation will be followed by an interpretive discussion of the obsidian source provenance study in relation to Archaic and Early Agricultural periods in the Southwest.

**Shackley, Steve (University of California, Berkeley)** [163] *Discussant*

**Shaffer, Gary (USDA/NRCS)**

[124] *Nanticoke Indian Burial Practices: Challenges for Archaeological Interpretation*

This paper compiles firsthand accounts of human burial practices of the Nanticoke Indians and identifies implications of these traditions for archaeological interpretation and NAGPRA repatriation. The Nanticokes, first encountered by Europeans on the Eastern Shore of Chesapeake Bay, were known for disinterring primary inhumations in order to clean bones and reinter them in local ossuaries or in secondary burials at new settlements. Assembled descriptions of mortuary customs include original translations of eighteenth-century German diaries of Moravian missionaries. Consideration of the reported burial behavior of the migrating Nanticokes indicates several challenges in associating specific interments with specific cultural groups.

**Shanower, Eric (Hungry Tiger Press)**

[59] *Troy Reconstructed: Archaeology in the Comic Book Series Age of Bronze*

Eric Shanower is the creator of the award-winning comic book series *Age of Bronze*, which collects the varied strands of Trojan War literature and art into one storyline. The artwork in *Age of Bronze* incorporates archaeological discoveries from the story's locations--Troy, Mycenae, Pylos, the Greek islands, and more--to bring the 13th century BCE Aegean world back to life. Pottery, frescoes, remains of walls, Linear B tablets, geophysical surveys of the current international excavation at Troy--all these are fodder for Shanower's drawings in *Age of Bronze*.

**Shanower, Eric (Hungry Tiger Press)** [59] *Discussant*

**Sharer, Andrew** [50] *see Bair, Daniel*

**Sharrard, Jeff** [50] *see Bikowski, Emily*

**Shearin, Nancy (Bureau of Land Management)**

[52] *Landscape Applications of Photogrammetry in Cultural Resource Planning*

Digital mapping techniques applied to photogrammetric contour imagery have been useful in identifying cultural site density. This methodology has unique applications for locating prehistoric road segments, great kivas and other landscape modifications. Applications of photogrammetry for predictive landscape models of occupation density based on climate/vegetation change have been useful in resource management planning.

**Sheehan, Michael (Illinois State Museum)**

[164] *A CAOS in Points: The Agony and the Ecstasy of Projectile Point Typology*

Projectile point typology is a standard tool used in the analysis and interpretation of archaeological sites and regional archaeological patterns. Conventional typological approaches are based on the presence of discrete morphological variation among types. Recent research has suggested that morphological variation is continuous among types. This has important implications for the construction of regional chronologies based on projectile point typology. Analysis of projectile points from Modoc Rockshelter employing computer-assisted optical stereology shows that trends in projectile point morphological variation are not strongly correlated with temporal affiliations. This creates an almost insurmountable challenge to the application of conventional projectile point typology.

**Sheets, Payson (University of Colorado)**[32] *Exploring the Meanings of Human Movement in the Ancient Costa Rican Landscape*

The Proyecto Prehistorico Arenal integrates remote sensing with archaeology and geology to document phases of ancient footpaths in northwestern Costa Rica. Beginning 500BC people separated cemeteries from villages and walked single file in straight lines between them. Generations of ideologically-structured movement had the unanticipated effect of entrenching the paths. This became the proper/ideal way to enter a special place, as generations constructed meaning and social memory. Archaeological and geological evidence of path routes and endpoints are presented. Later complex societies needed monumentality, and built massive entrenched entryways. The later meaning of construction is revealed in the earlier construction of meaning.

**Shelach, Gideon (The Hebrew University) and Ofer Marder (Israel Antiquities Authority)**[55] *Early Neolithic Communities in North China: Site Structure in Comparative Perspective*

Analysis of site structure 'variability of architectural features, their location vis-à-vis each other, etc.' is instrumental in studies of Neolithic communities world-wide. In China as well, site structure has figured prominently in analysis of Neolithic societies but most studies have focused on a few well-known examples and have not taken advantage of advanced techniques of spatial analysis. Rigorous analysis of recently excavated sites from north China produces a much more heterogeneous picture of early Neolithic communities. Comparison with known examples from China and elsewhere is used to develop the theoretical foundation for reconstruction of early Neolithic communities.

**Shelnut, Nicole (University of South Florida), Robert Tykot (University of South Florida), Adolfo Gil (Museo de Historia Natural, Argentina) and Gustavo Neme (Museo de Historia Natural, Argentina)**[156] *Stable Isotope Analysis of Hair and Soft Tissues from Prehistoric Argentina*

Stable isotope analysis was performed on hair, muscle, skin and fingernail samples of prehistoric individuals from the modern province of San Juan in northwest Argentina. The individuals represent several cultural groups, ranging in age from approximately 4000 to 600 BP. The analysis allowed for the examination of seasonal changes in what is thought to be an area that encountered substantial dietary shifts around 2000 BP. Data are presented as evidence of the introduction of maize agriculture as well as for possible malnutrition and/or famine. This research contributes to the reconstruction of cultural processes in the Andean region.

**Sheptak, Rus (University of California, Berkeley)**[166] *The Continuity of Social Practices in the Colonial Period Ulua Valley, Northern Honduras*

The sixteenth century has traditionally been treated as a break in what is actually a continuum of occupation of the Ulua Valley. Colonial towns developed at the sites of many Postclassic settlements. Extensive research in colonial archives demonstrates that the inhabitants of colonial towns in the Ulua Valley continued to negotiate their place in society independently of other towns. Engagement with other regions through inter-town marriage, Caribbean trade, and military mobilization (initially to resist Spanish and later pirate intrusions), and continued cultivation of cacao, the mainstay of the precolombian economy, are documented for towns throughout the valley.

Sheptak, Rus [166] *see Henderson, John***Sherman, Susan (Harvard University)**[58] *Isla Tacamichapa, a Crossroads of Fine Paste Relief Ware Technology*

This paper will describe the technological processes by which fine pastes and mold-made ceramics are made, outlining the development of that technology in Mesoamerica. It will relate this to findings from the Isla Tacamichapa region, in southern Veracruz. Besides its own fine paste industry, imported wares included Tohil Plumbate from Guatemala's Pacific littoral, molded-carved ware from Rio Blanco, and a bowl with distinctively southern Maya plano-relief carving. This suggests that in the latter part of the first millennium, the relatively unexcavated Isla Tacamichapa region was a crossroads of trade routes from all parts of Mesoamerica.

Sherman, Susan (Harvard University) [58] *Discussant*Sherwood, Sarah (University of Tennessee) [84] *Discussant*; [151] *see Driskell, Boyce*

**Shimada, Izumi (Southern Illinois University) and Haagen Klaus (The Ohio State University)**

[99] *Pre-Hispanic Care and Alterations of Human Bodies and Skeletons on the Central and North Coasts of Peru*

Post mortem care and alterations of human bodies and skeletons in pre-Hispanic coastal Peru were more frequent, diverse and diffused than commonly recognized. The special significance of the head, the applicability of the concepts of *pars pro toto*, transformation of the dead to assume new identities, and good versus bad deaths are discussed. We argue that a comprehensive understanding of the treatment of the dead requires a broad examination of ritual and social contexts.

**Shimada, Izumi [49]** *see Wagner, Ursel*

**Shiner, Justin (Comalco Aluminium Limited, Australia) [84]** *Discussant*

**Shott, Michael (University of Northern Iowa) [150]** *Discussant; [84]* *Discussant*

**Shoup, Daniel (University of Michigan)**

[64] *An Integrated Periphery: Lessons from Xanthos*

Lycia, in southwest Anatolia, was ruled by Persia between 540-323 BC but was also a heavy consumer of Greek material culture. Funerary ceramics and inscriptions at the capital Xanthos offer examples of cultural hybridity. Among intense inter-elite competition, imported goods and styles played a key role in constructing a Lycian identity. However, this material messaging also targeted the small Greek and Persian minorities in the city with statements about Lycia's place in the regional political environment. This case study illustrates how the uses of artifacts may have multiple implications for identity, and suggests new ways of understanding marginal groups.

**Shugar, Aaron (SCMRE, Smithsonian Institution)**

[129] *Reconstructing the Copper Production Process at El Coyote, Honduras: A Technological Review of the Archaeological Remains*

During the 2004 excavations at El Coyote evidence that copper processing occurred in antiquity on site was discovered. The remains include a copper ore processing center, an in situ smelting furnace, and what can best be described as a water table used for sorting slag and copper. This paper will present the technical investigation of the copper processing materials and offer a reconstruction of the methods used to produce metallic copper from ore.

**Sievert, April [95]** *see Pope, Melody*

**Sikes, Nancy (SWCA Environmental Consultants) and Elliott Lips (University of Utah)**

[105] *Evidence from Sediment Cores for the Presence of Lacustrine Ecosystems during the Paleoindian Period, Eastern Great Basin, Utah*

Environmental analyses (sediments, pollen, ostracodes, C-13 isotopes, O-18 isotopes) of sediment cores demonstrate the presence of three relatively shallow, slightly saline, freshwater lakes between 11,510-6,840 14C yr B.P. in the southeastern Lake Bonneville basin. Pollen indicates winter-dominant rainfall was stronger than now, with a gradual shift to summer precipitation. Regional vegetation was similar to today, with pinyon in younger sediments, although plant species abundances were different. Regional Paleoindian occupations may have been related to the presence of the lacustrine ecosystems in the Sevier basin (Lake Gunnison/Sevier Lake and Wah Wah Valley Hardpan) and Beaver River Bottoms area (Black Rock).

**Sillar, Bill (Institute of Archaeology, University College London)**

[68] *Material Differences: How Were Allegiances of Kinship, Ethnicity and State Constructed and Displayed in the Andes?*

Why is it so difficult to identify ethnic differences in the archaeological record of the Andean highlands when the presence of the Inka state seems relatively easy to identify? Perhaps the ethnic identity of groups like the Canas was a function of kinship and allegiance to their kuraka that was not expressed through their quotidian house and pottery traditions (which are similar to those of their neighbors). In contrast the rapid development of a range of 'Inka' style pottery and architecture drew upon distinctive styles previously existing in the Cuzco region and helped to forge a new shared identity through colorful rituals that emphasized developing social hierarchies within the 'Inkas of privilege.'

**Silliman, Stephen (University of Massachusetts, Boston) and Katherine Sebastian (Eastern Pequot Tribal Nation)**

[39] *Working on Pasts for Futures: Eastern Pequot Field School Archaeology in Connecticut*

Based on our experiences with the ongoing UMass Boston/Eastern Pequot Tribal Nation field school in Connecticut, we argue that collaborative university field schools conducted on tribal lands and for Native nations can be mutually beneficial and must play a central role in contemporary archaeology. Field schools can benefit indigenous communities through lower-cost historic preservation efforts with limited resources, practical archaeological training for tribal members, and Native oversight of research. Simultaneously, field schools provide students the opportunity to work closely with descendent communities, to examine the empirical and political aspects of field methods, and to think about a more responsive archaeology.

**Silva, Daniela G. Rodrigues (Universidade de São Paulo) and Renato Kipnis (Universidade de São Paulo)**

[30] *Plant Collecting and Terminal Pleistocene Subsistence Economy of Foraging Societies in the Neotropics*

South American archaeology is becoming a crucial player in the debate of the initial colonization of the Americas. In the last twenty years, excavations in South America have raised exciting new ideas and questions about the subsistence economy of Terminal Pleistocene/Early Holocene foraging societies of the neotropics. Micro-economic models derived from evolutionary ecology, together with indirect empirical evidence based on archaeological studies in the Amazon and in Central Brazil, have suggested that the subsistence economy of the Late Pleistocene/Early Holocene foragers was organized around plant collecting. In the present paper we test these models with evidence from archaeobotanical remains from Central Brazil.

**Simmons, Alan (University of Nevada, Las Vegas)**

[133] *The Colonization of Remote Places: Neolithic Ais Yiorkis, Cyprus*

The Near Eastern Neolithic represents one of the first examples of massive communal living. Recent research shows that there was considerable interaction between regions. In particular, we now know that Cyprus was visited during the late Epipaleolithic and actually settled during the Neolithic at least a thousand years earlier than previously thought. This has particular implications for early domestication and for the social complexity required for an open-seas colonization strategy. This paper examines this issue from the perspective of Ais Yiorkis, one of the new sites contributing to our reorientation of how remote, previously unoccupied, areas were colonized.

**Simmons, Alan [133] see Ladah, Ramzy**

**Simmons, Scott (University of North Carolina at Wilmington)**

[50] *The Maya Archaeometallurgy Project at Lamanai, Belize*

The Maya Archaeometallurgy Project (MAP) is in its fourth 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 in 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.

**Simmons, Scott (University of North Carolina at Wilmington) [41] Discussant**

**Simms, Steven (Utah State University) [75] Discussant**

**Simon, Arleyn (Arizona State), David Van Alfen (Arizona State), Anshuman Razdan (Arizona State), Gerald Farin (Arizona State) and John Femiani (Arizona State)**

[94] *Shape Classification of Salado Ceramic Vessels: Modeling and Morphological Analysis*

We examine contrasting ceramic production traditions for Salado sites in central Arizona during the Classic period (A.D. 1250-1450), a time of population movement, cultural juxtaposition, and amalgamation. Prehistoric ceramic traditions contained favored selections of vessel forms, but our ability to reconceptualize these primary categories is hampered by manual methods of classification. Definitions of vessel classes use commonly occurring terms, yet these are often qualitative. Recent advances in mathematical shape analysis are utilized to provide quantitative and thus more objective categorization of ceramic vessels and to examine the selective integration of influences from several distinct ceramic traditions within Salado ceramic assemblages.

**Simonelli, Lynn (Dayton Society of Natural History)**

[10] *From Square Holes to Rectangular Houses: A Unique Archaeological Internship in Dayton, Ohio*

The Dayton Society of Natural History hosts a unique internship program for young archaeology professionals. Each summer, individuals are selected from across the U.S. and abroad (through US/ICOMOS) to participate in our program. Interns spend half their time aiding the reconstruction of the Fort Ancient period SunWatch Indian Village/Archaeological Park, and half of their time excavating a Fort Ancient habitation site nearby. The conjunction of archaeological excavation and physical reconstruction allows the participants to experience both the recovery of archaeological data and the interpretation of that data to the public.

**Sinitsyn, A. A. [62]** *see Hoffecker, John*

**Six, Janet (University of Pennsylvania)**

[3] *Sugar and Decay: An Archaeological and Ethnohistorical Inquiry into the Sugar Industry in Ka'u*. In the 1860s, following the abolition of slavery in the United States, the locus of sugar production shifted to Hawaii. With this new industry came new forms of labor. Contract laborers - primarily from Asia - were imported to work on plantations in Hawaii. Despite being sequestered in ethnically segregated workers - camps, over time traditional cultural boundaries blurred and the plantation villages gave rise to a new, creolized community. This poster will outline the archaeological and ethnohistorical recovery methods used to identify and analyze the ruins associated with the sugar industry in the District of Ka'u on the Big Island of Hawaii.

**Skibo, James (Illinois State University)**

[135] *Great Divide or Seamless Web? Understanding the Relationship between Ethnoarchaeological Observation and Archaeological Practice*

An examination of the number of references to works of ethnoarchaeology in American Antiquity over the past 30 years reveals that ceramic ethnoarchaeological research has been largely underutilized. The reasons for this "great divide" are explored and an argument is made, based upon my own research in ceramics on both sides of the divide, that these types of differences should not exist. Both the ethnoarchaeologist and prehistorian share responsibility for this chasm of misunderstanding, which can be traced to factors including different perceptions of the role of analogy in archaeological inference, variation in the units of analysis utilized, and the increasing insular nature of regional and topical specialties.

**Skidmore, Maeve [87]** *see Yates, Donna*

**Skinner, Craig [26]** *see Ferguson, Jeffrey*

**Slaughter, Mark (Bureau of Reclamation) and Karen Harry (University of Nevada, Las Vegas)**

[158] *Engendering Migration: Exploring the Lived Experiences of Prehistoric Immigrants in Southern Arizona*

Beginning in the mid-13th century, various Puebloan groups migrated into southern Arizona, often settling adjacent to established indigenous populations. One village founded during these immigrations was the Gibbon Springs site, located in the Tucson Basin. Its material culture suggests that while the immigrants retained certain aspects of their homeland lifestyle, they modified other aspects of it and, in some cases, intentionally adopted the technology and style of their new Hohokam neighbors. This paper examines the different strategies adopted by the Gibbon Springs residents to establish themselves in this new setting, and considers how these strategies differed by household and gender.

**Slaughter, Mark [94]** *see Perry, Lauren*

**Slaughter, Susan [105]** *see Wedding, Jeffrey*

**Sload, Rebecca (Independent Researcher)**

[117] *Termination Ritual at Teotihuacan, Mexico, as a Window to Belief in Animating Force*. Animating force, the belief that inanimate objects and natural phenomena have a life force or power, has been and continues to be a construct that patterns behavior in Mesoamerica. Archaeological evidence for the existence of this belief is most clearly seen in termination rituals. Evidence of ritual termination at Teotihuacan is examined, including an argument that the blockages in the cave under the Pyramid of the Sun are a variant. Other evidence supporting a belief in animating force at Teotihuacan is also presented, and some general implications of the construct for Teotihuacan worldview are suggested.

**Smallwood, Ashley [69]** *see Pevny, Charlotte*

**Smith, Archie [10]** *see Carnes-McNaughton, Linda F.*

**Smith, Claire (Flinders University & World Archaeological Congress)**

[107] *Caring for Culture: Stewardship in Aboriginal, Academic and Mainstream*

Since the 1980s, Australian archaeology has formulated and implemented multi-lateral, practicable and academically sound ways of caring for cultural heritage. Negotiating gaps between aboriginal and western epistemologies, between retentionist institutional 'audit cultures' and more personable, less centralised ways of managing patrimony produces expanded understandings of archaeological heritage (objects, stories, places, perceptions). Juxtapositioning insider's and outsider's perceptions and handling of material and related culture leads both to mutual recognition and reinvigoration - and to conflict. Using case studies from the field, academy and mainstream society, a sample of stewardships – successful and conflictual – is offered and salient guiding principles drawn out.

**Smith, Craig (TRC Mariah Associates)**

[17] *Resource Sharing, Public Goods, and Time Minimizing: Archaeological Evidence from the Mid-Holocene Elk Head Site, Big Horn Basin, Wyoming*

Researchers have categorized forager adaptive strategies as either time-minimizers with an immediate-return system or energy-maximizers with a delayed-return system. Time minimizers share resources, treat resources as public goods, lack long-term storage, exploit foods with low handling costs, and are residentially mobile. Archaeological clues indicating time-minimizers include evidence for sharing such as refitting of artifacts, the close spacing of dwellings, the absence of storage facilities, and the low density and diversity of recovered remains. The analyses of the remains of three contemporaneous, closely spaced huts at the Elk Head site reveal that they shared resources and appear to have been time-minimizers.

**Smith, Craig [27]** *see Byers, David*

**Smith, Geoffrey (University of Nevada, Reno)**

[88] *Lake Parman Revisited: The Paleoarchaic Occupation of Five Mile Flat, NV*

In 1968, Thomas Layton recorded four archaeological localities at Five Mile Flat, a small basin located in northwestern Nevada. Dr. Layton observed 50 Great Basin Stemmed projectile points at the site. Such tools have been dated to between 9140 and 8170 BP at nearby Last Supper Cave. In a recent visit to Five Mile Flat, a crew from the University of Nevada, Reno recovered over 100 stemmed projectile points and several hundred associated tools. Technological analyses and geochemical sourcing of these artifacts will permit inferences about the lifestyles and mobility patterns of early-period hunter-gatherers in northwestern Nevada.

**Smith, George (Southeast Archaeological Center), Guy LaChine (National Park Service), Peter Schula (National Park Service) and John Bundy (National Park Service)**

[138] *Banking on a Public Trust: An Unusual ARPA Case at Ocmulgee National Monument*

Ocmulgee National Monument, a National Register site in Georgia, survives for the enjoyment of present and future generations because of laws, regulations, policies, and guidelines that call for the protection and management of such resources on public lands. It is hard to believe that such a resource could exceed priceless, yet, for a day it did, when a man was found trying to bury a large amount of cash and bullion coins at the site. He was making a deposit at the Bank of Public Trust. The very laws that he believed would protect his money were used to bring charges against him.

**Smith, H.C. (University of Oklahoma)**

[17] *House and Household in the Middle Woodland Cuesta Phase*

The Middle Woodland Cuesta phase of the Central Plains illustrates how the house as physical structure (as dwelling place) can inform about the household in prehistory. The household, according to Wilk and Netting, is that group of co-residing persons who, as a unit, see to the production and distribution of resources, the reproduction (enculturation) of new members of society, and the transmission of rights, property, and wealth intergenerationally. The present research addresses the formation of large households during the Cuesta phase as a social response to changing organization of production brought about by increasing sedentism and altered mobility strategies.



**Smith, John W. (University of Oklahoma)**

[23] *Compositional Study of Ceramics from the San Simon Valley, Arizona*

Petrographic analysis of rock and mineral inclusions in a ceramic sample can be used to establish temper composition groups within a collection of sherds. Using multivariate analysis, the relationship between temper groups and groups based on classification and attributes of the sherds can be determined. Three temper groups from sherds collected in the San Simon Valley of southeastern Arizona are compared with decoration style, site location, sand sample composition, and clay composition. A significant correlation is found between temper and both decoration style and clay composition, but not with site location or sand sample composition.

**Smith, Karen** [3] *see Neiman, Fraser*

**Smith, Laura (University of California, Davis)**

[9] *Early Maritime Adaptations in the Western Arctic: A (Re)Analysis of the Faunal Remains from the Village Site on Choris Peninsula, Northwestern Alaska*

The excavation of a village site on Choris Peninsula by J. Louis Giddings in the 1950s resulted in a revision of our understanding of early maritime adaptations. The large oval houses that make up this Choris period village are unique in the western Arctic. Dating from the sixth to eighth centuries B.C., the village site effectively pushes back the date for earliest year-round coastal occupation by several hundred years, and links Choris to the later Norton culture. I present a (re)analysis of the faunal remains from this important western Arctic site, linking the Choris Peninsula subsistence and settlement strategies to a broader regional pattern.

**Smith, Laurajane (University of York)**

[165] *The Palmer Report in the Light of Repatriation Issues in the United States and Australia*

This paper reviews the possibilities offered by the British Palmer Report and its recommendations for legislative and policy changes to enable the repatriation of human remains to Indigenous communities. This examination is undertaken within the context of a wider critical analysis of both NAGPRA and Australian reburial legislation, policy and practice. Archaeology, via repatriation legislation and policy, participates in wider state issues concerned with governance and regulation of cultural identity and political power. If Britain is to participate in the repatriation process, it must avoid developing legislation and policy that simply privileges archaeological and wider Western rationalist values.

**Smith, Monica L. (University of California, Los Angeles)**

[85] *Measuring Consensus in Ancient Cities: Evidence from Sisupalgarh, India*

Urban configurations such as monumental architecture and regularized public spaces are multipurpose entities that represent a consensus on form and function. Consensus can also be evaluated at the domestic level, where artifacts and architecture reveal the internalization of the urban ethos. Survey at the Early Historic city of Sisupalgarh in eastern India indicates that the majority of artifacts and architectural materials would have been available within a 10-km radius of the site. The evidence supports a model in which the success of cities is predicated on their local networks of economic and social contacts rather than long-distance exchange.

**Smith, Monica L. (University of California, Los Angeles)** [85] *Discussant*

**Smith, T. Michael (Museum of Church History and Art)**

[63] *Discovering Mormon Mount Pisgah*

As the Mormon residents of the Nauvoo, Illinois area were forced from their homes in early 1846, thousands of poorly prepared people began their movement over what would eventually become The Mormon Pioneer National Historic Trail. Struggling through Iowa, these Mormon emigrants soon realized they would not be able to reach the Salt Lake valley that year. Consequently, a series of temporary way-station settlements were established to facilitate the epic migration. Mount Pisgah, Iowa is the best surviving example of these settlements. This paper reports on research, which utilized historical, aerial, pedestrian, geophysical, and dowsing techniques to identify the core area of this once densely populated Mormon pioneer community.

**Smith-Lintner, Cheryl (University of California, Berkeley)**

[114] *You Are What You Eat . . . Or Are You?: Animal Remains in Culture Contact Studies*

This paper seeks to explore current and alternative approaches to the study of animal remains in culture contact archaeology. Supporting approaches will draw from current zooarchaeological analysis at El Presidio de San Francisco (c. 1776-1870s) and the Peralta Adobe (c.1830-1840s), both in northern California.

**Smyth, Michael (Rollins College)**

[116] *A Large Preclassic Center in the Puuc Region: New Data from Xcoch, Yucatan*

New data from Xcoch show evidence for a Preclassic center in the heart of the Puuc region. Located between Uxmal and Santa Elena, initial reconnaissance in 2004 revealed a large site built around a deep water cave, a gigantic pyramid and massive acropolis-like platform, numerous E-Group-like quadrangles built in the megalithic style, and widespread Preclassic surface pottery. These initial data suggest that Xcoch had a substantial Preclassic occupation and a large Early Classic settlement. Future investigation will assess the importance of this large, unexplored early Maya center, with the potential to open a whole new chapter of Puuc region prehistory.

**Snead, James (George Mason University)**

[97] *Competition, Place, and Identity in the Galisteo Basin, AD 1250-1550*

Ideas of place, deeply rooted in Pueblo culture, are manifest on the Colorado Plateau through Great Houses, Great Trails, persistent communities, and other formal features. Many of these appear to be absent from the post-diaspora landscape of the northern Rio Grande, implying that ways of 'place-making' changed over time. New archaeological evidence from the Galisteo Basin indicates that place-making in the early 1300s was a competitive process, suggesting that the historic pueblo world-view may have emerged from an era of conflict in which different ways of "organizing the land" were in play.

**Snow, Dean (Pennsylvania State University)**

[93] *Determining the Sexes of Pictographic Handprints*

Pictographic handprints are a worldwide human phenomenon. Archaeologists have often assumed that they were made primarily (if not exclusively) by men and boys. However, human hands are sexually dimorphic, and because of this it is possible to determine the probable genders of individuals who left handprints in the archaeological record. Key measures include overall hand length and certain ratios of digit length. I started with a reference database of scanned handprints from an American population of European descent. Mean measurements from that population were used to determine the genders of handprints in European caves. This is possible because recent research has shown that the European population has been genetically stable since the Upper Paleolithic. Preliminary findings from four French caves indicates that both men and women were present. Visitors to the poster presentation will be able to compare their own handprints to examples from the caves and to compute their own probabilities.

**Snyder, David (Ohio Historic Preservation Office) and Ann Cramer (Wayne National Forest)**

[5] *Using Geographic Information System Data in Ohio as an Aid to Site Protection*

In responding to damage from the February 2003 ice storm in southern Ohio, archaeologists from the U.S. Forest Service, Wayne National Forest and the Ohio Historic Preservation Office used Geographic Information System (GIS) capabilities to facilitate coordination. Layering of information and electronic transmission of digital map images enabled us to identify specific archaeological sites requiring protection. Some technical difficulties were encountered.

**Soderland, Hilary (University of Cambridge)**

[165] *The Path of NAGPRA Through Congress: Codifying Ideals*

Numerous bills were introduced in Congress that dealt with the protection, preservation, and/or repatriation of Native American heritage, including human remains. It was not until the 101st Congress in 1990 that NAGPRA was codified into law. This paper will examine the bills in the 101st Congress and the steps they took in the legislative process that culminated in the passage of NAGPRA - a milestone in US archaeology law.

**Solometo, Julie (James Madison University)**

[69] *Characterizing Conflict: Defensive Sites and Strategies in East-central Arizona*

This poster documents the defining characteristics, chronology, and occupation histories of a unique set of defensively-oriented sites in prehistoric east-central Arizona. Recent survey, mapping, and excavation data indicate that occupation of these sites entailed significant social changes and major alterations in landscape use, with lasting effects on local populations. Examination of sites and settlement patterns reveal the defensive strategies adopted by the site's occupants, serving as important clues to the nature of the perceived threat. Settlement pattern and artifact data from adjacent regions suggest that the defensive response was both widespread and accompanied by a significant amount of inter-regional trade.

**Somers, Bretton (Louisiana State Univ) and Heather McKillop (Louisiana State Univ)**

[134] *The Lost Maya are Only a Shovel Test Away*

Some ancient Maya sites are invisible in the modern landscape due to environmental change. In other cases there is extensive settlement without mounded remains. Shovel-testing along transects has successfully discovered these types of hidden sites on the southern coast and offshore cays of Belize. We discuss the discovery of sites in forested areas, underwater, and in mangrove swamps at Wild Cane Cay, Frenchman's Cay, Arvin's Landing, Tiger Mound, Pelican Cay, and the newly discovered underwater sites in Paynes Creek National Park. Compelling evidence from our research indicates that current assessments seriously under represent Maya population estimates and settlement patterns.

**Somers, Bretton [108]** *see McKillop, Heather*

**Sorensen, Kathryn [12]** *see Glover, Jeffrey*

**Sorrell, Daniel (Northern Arizona University)**

[104] *A New Method for Dating Cohonina Sites Based on Ceramic Thickness*

Recent investigations into attribute variability within assemblages of Cohonina pottery from sites in north-central Arizona support the viability of a new dating technique. Measures of mean sherd thickness for these assemblages appear strongly correlated with tree-ring cutting dates produced from the various sites. A simple regression formula serves as the basis for the new model, which offers an easy method for dating the numerous Cohonina sites that exhibit indigenous pottery, but lack more precisely dated decorated trade types. The author asserts that employment of the new procedure will result in vastly more synchronic views of Cohonina prehistory.

**Sorrell, Daniel [141]** *see Weintraub, Neil*

**South, Sue [3]** *see Bates, Brian*

**Southworth, Don (Sagebrush Consultants, L.L.C.)**

[142] *Military Forts and their Architectural and Archaeological Landscapes*

Military forts are dynamic facilities that are in constant change. Historical records important in understanding archaeological and architectural features on these sites. Due to changes that have occurred at an installation, documentation and the use of archaeology as a tool of interpretation must include a proper understanding of military documents. Existing maps of Fort Douglas, Utah, dating from 1862 to the present, provide a good example of this interpretation. On different copies of fort maps, some specifically identified buildings appear in different locations or not at all. Further, some appear on maps, but not in the archaeological record. This paper discusses how archaeological investigation was used at Fort Douglas to identify and correct the information gathered from documents.

**Spangler, Jerry [51]** *see Jones, Kevin T.*

**Spanos, Mary [143]** *see Dumas, Ashley*

**Speakman, Jeff [83]** *see Ghazal, Royal*

**Speakman, R. Jeff [133]** *see Vargo, Barbara A.*

**Speakman, Robert (University of Missouri), Michael Glascock (University of Missouri), Christophe Descantes (University of Missouri), Rachel Popelka (University of Missouri) and David Robertson (University of Missouri)**

[25] *An Examination of the Potential of Portable-XRF in Archaeology*

X-ray fluorescence spectrometry (XRF) is one of the most widely used and versatile of all instrumental analytical techniques. Archaeologists routinely use XRF to characterize pottery, obsidian, metal, and other inorganic materials. Technological advances in XRF instrumentation during the last several years, such as the development of high-precision thermoelectrically-cooled detectors and miniature X-ray tubes have facilitated the development of portable-XRF instruments that provide rapid, low-cost, multi-elemental characterization of archaeological materials. A major advantage of PXRF is that the instrument easily can be transported into the field or to museums, permitting multi-element chemical characterization of archaeological materials in nontraditional laboratory environments.

**Speakman, Robert [27]** *see Descantes, Christophe; [48]* *see Creel, Darrell*

**Speakman, Robert J. [27]** *see Hoard, Robert J.; [163]* *see Popov, Vladimir K.*

**Speller, Camilla (Simon Fraser University), Brian Hayden (Simon Fraser University) and Dongya Yang (Simon Fraser University)**

[101] *Analysis of Ancient DNA to study the Differential Distribution of Salmon Resources in the Pacific Northwest*

Ancient DNA analysis was applied to approximately 60 salmon remains (1200BP) from the archaeological site of Keatley Creek in British Columbia to examine the distribution of Pacific salmon species between housepits. The success rate of DNA extraction was over 90%, yielding three species of Pacific salmon: Chinook, Sockeye and Coho. Accurate salmon species identification using mitochondrial DNA refined theories of economic stratification and differential access to salmon resources at Keatley Creek. Additionally, the unique information made available by ancient DNA analysis offered insight into prehistoric salmon ecology and spawning behaviour in the region.

**Spenard, Jon**

[112] *Ritual Caves and Rock Shelters of the Cancuen Region*

This paper will be a general overview of recent spelaeoarchaeological research in the vicinity of the Late Classic period Maya site of Cancuen. The paper will discuss initial findings as well as offer preliminary hypotheses towards the usage of the caves and rock shelters of the region throughout the Classic Period.

**Spencer, Charles S. (American Museum of Natural History)**

[121] *Crossing the Valley: Adaptive Landscapes and Primary State Formation in Ancient Oaxaca*

In this paper I apply Sewall Wright's model of adaptive landscapes to the process of primary state formation, by which a state society evolves without precedent in a context of preexisting non-state societies. A key expectation of Wright's model is that a system undergoing such a major evolutionary transformation must traverse a valley of relatively low fitness as it moves from one adaptive peak to the next. This expectation is evaluated with archaeological data pertaining to the rise of the Monte Alban state ca. 300, B. C. in Mexico's Oaxaca Valley.

**Spensley, Ellen (Boston University)**

[73] *Plaster Technologies at Trinidad de Nosotros: A Regional Perspective*

During the 2003 field season, plaster samples were collected from the site of Trinidad de Nosotros, located on the northern shore of Lake Peten-Itza. Preliminary micromorphological study of these plasters has revealed that patterns of floor construction and plaster ingredients varied according to location around the site. In particular, the floors of buildings from groups classified as (Tikal) Plaza Plan 2 were constructed in a unique pattern. These results are compared with plaster samples from Tikal. In order to investigate the degree to which elite building plans were followed at smaller centers such as Trinidad.

**Spensley, Ellen [73]** see Kerns, Eric S.; see Haldeman, Benjamin

**Sperinck, Jason [69]** see Kelly, Sophia

**Spielmann, Katherine (Arizona State University) and Tiffany Clark (Arizona State University)**

[161] *Herding and Rustling: Variability in Access to Spanish Domestic Stock among the Salinas Pueblos*

The Salinas pueblos of central New Mexico were established in a diversity of environments, from more mountainous to more Plains-like, developed different intensities of trading relations with Plains hunter-gatherers, and experienced different histories of occupation over the period from A.D. 1300-1672. Following upon Spanish colonization in the early 1600s, some pueblos were missionized, while others remained visitas, with no Spaniards in residence. In this paper we explore the ways in which pre-colonial hunting strategies and trading relations, and post-colonial missionary presence affected the choices that residents of different Salinas villages made concerning consumption of Spanish domestic animals.

**Spielmann, Katherine [29]** see Livingood, Patrick; [69] see Schollmeyer, Karen Gust

**Spurr, Kimberly (Navajo Nation Archaeology Department) and Kirk Anderson (Navajo Nation Archaeology Department)**

[82] *An Assessment of Agricultural Features and Soil Fertility in Prehistoric Fields along the Little Colorado River in Northern Arizona*

Extensive rock alignments marking prehistoric fields offer evidence about dry-farming methods

including water control, wind protection, microclimate selection, and use of volcanic cinders as mulch. With only 15 cm of annual precipitation and without irrigation, water was likely the most important constraint on agricultural success. Soil fertility analyses suggest plant productivity was adversely affected by low nitrogen levels and high pH, which limits phosphorus availability. Without the use of fertilizers, these soils might have become unsuitable for crop production relatively quickly. Regardless of these impediments, pollen analysis at nearby fields demonstrates cultivation of corn and other crops by prehistoric people.

**Stackelbeck, Kary (University of Kentucky)**

[136] *Settlement Permanency and Trends Toward Greater Complexity on the North Coast of Peru*  
Recent research on the north coast of Peru identified several sites with multiple Early and Middle Preceramic domestic structures and associated activity areas. These findings are discussed in terms of their relevance for understanding trends toward village settlement patterns and group development. Much like other parts of the world, settlement permanency, technological change, and increased economic intensification in the Central Andes preceded agriculture and thus signal important trends in the development of later complex societies. Less obvious is the articulation of place and identity in the development of territoriality and the roles that each played in regional long-term socio-economic change.

**Staeck, John (College of DuPage), Michael Dietz (University of Missouri-Columbia) and Weston Griffiths (UNLV)**

[100] *New Perspectives on Pohansko, A Great Moravian Center*  
Pohansko, Czech Republic represents a Great Moravian fortified site encompassing nearly 68 hectares that is typically interpreted as a single episode, elite residence for the head of state supported by both military and craft elite. A new series of excavations coupled with reinterpretations of existing data suggest the site also housed additional sub-classes of society and need not have been a residence of a state leader. Alternate forms of political organization are suggested as viable mechanisms for modeling the Great Moravian manifestation.

**Staeck, John [100] see Dietz, Michael**

**Stafford, Jr., Thomas W. [151] see Owsley, Doug**

**Staller, John (Field Museum of Natural History) and Irwin Rovner (Binary Analytical)**

[164] *Morphometric Analysis of French Neolithic Projectile Point Variation: Some Solutions to a Typological Dilemma*

A Field Museum assemblage of 109 French Neolithic projectile points from a single component posed a typological dilemma. All were retouched prismatic blade segments relatively small in size, and from the same source material. Point shapes however were exceptionally diverse suggesting deliberate individual stylistic variation. A reconstruction of morphotypes based on shape similarity indicated a repetitive and inappropriate classification method that contradicted the inferred behavioral patterns. A distribution plot of morphometric shape factors provides a logical, and coherent basis for analysis of the assemblage and systematic comparison with other assemblages.

**Stanford, Dennis (Smithsonian Institution) [151] Discussant**

**Stankowski, Cindy (San Diego Archaeological Center)**

[33] *Curation ABCs*

The San Diego Archaeological Center has adopted an increasingly effective approach to the Curation Crisis: Awareness, Buy-in, and Credit. This paper highlights the successes and challenges of making curation a reality in a county with 17,000 recorded archaeological sites.

**Stark, Barbara (Arizona State University)**

[58] *Distributional Patterns of Relief Molded Vessels in South-central Veracruz, Mexico*

This distributional study of Late Classic relief molded vessels (also known as "Rio Blanco style vessels") relies on archaeological survey. The surface sherds show a degree of concentration along the lower Blanco River, but also are distributed along adjacent drainages. The distributions suggest fabrication in the Blanco area and exchange to other locales. These vessels develop from an antecedent tradition of molded or carved scenes in the region. Relief molded vessels are among the most elaborate vessels of the Late Classic period and suggest one of the vehicles for expressing and reinforcing elite status.

**Stark, Barbara L. [13]** *see Miller, Roberta Neil*

**Stark, Miriam (University of Hawaii-Manoa), David Sanderson (Scottish Universities Environmental Research Centre) and Robert Bingham (Scottish Universities Environmental Research Centre)**

[144] *Monumentality in the Mekong Delta: Luminescence Dating and Implications*

Brick monuments are one hallmark of emergent political complexity across much of mainland Southeast Asia during the first millennium A.D. They first appeared in association with Indic statuary, large nucleated settlements, and the region's earliest states. Chronometric research in the Mekong delta on the earthen and brick wall that surrounds Angkor Borei (southern Cambodia) provides some of the earliest secure dates for brick architecture in the region. This paper presents preliminary results of the dating program at Angkor Borei and examines the utility of luminescence techniques for dating historic period monuments across mainland Southeast Asia.

**Stark, Miriam [144]** *see Bishop, Paul*

**Starkovich, Britt (University of Arizona)**

[133] *Faunal Analysis at Hallan Çemi, an Epipaleolithic/Neolithic Transition Site in Eastern Anatolia*

This paper presents preliminary results on a sample of faunal remains from the main midden feature at Hallan Çemi, a terminal Epipaleolithic site in southeastern Turkey. The analysis seeks to examine hunting practices around the time of forager/farmer transition in the area, with a focus on the diet breadth of the (semi-) sedentary foragers that inhabited the site. Species representation, ungulate age structures, and strategies of carcass processing are evaluated in order to better understand animal exploitation and human ecology just prior to the early adoption of domesticated plants and animals in this region.

**Steele, Sean (Crow Canyon Archaeological Center) and Elaine Davis (Crow Canyon Archaeological Center)**

[10] *What Difference Does it Make?: The Influence of Crow Canyon's Pueblo Learning Center on Student Constructions of the Past*

The addition of a replicated ancestral Pueblo house to the campus of the Crow Canyon Archaeological Center's campus motivated the Center's education staff to review and revise its core curriculum. To better understand how, or if, this new facility affected student learning, an educational assessment was conducted in the spring of 2004. The focus of the assessment was the Center's two and three-day programs for elementary school students. Both qualitative and quantitative types of data were gathered to examine student learning. The findings of the assessment project are discussed in this presentation.

**Steele, Teresa [77]** *see Avery, Graham*

**Stein, Gil (University of Chicago)**

[47] *The (Archaeological) Joy of Cooking: Food Preparation, Social Context, and Ethnicity in a Prehistoric Mesopotamian Colony*

Differences between food preparation and consumption can reflect contrasts between domestic and more public social spheres. These activities highlight different context-dependent assertions of identity and practice. This paper examines food preparation at the site of Hac'nebi (Turkey), where, in 3700 BC, an Uruk Mesopotamian colony was established inside this local Anatolian settlement. I compare several aspects of food preparation with the social context of consumption. The evidence is consistent with gendered ethnic differences between these contexts, suggesting that colonists at Hac'nebi forged marriage alliances with local elites to form multi-cultural households of Uruk males and Anatolian females.

**Stein, Julie (University of Washington) [155]** *Discussant*; [84] *Discussant*

**Stemp, W. James (Keene State College)**

[108] *Evidence of Multiple Stone Tool Use at Marco Gonzalez, Ambergris Caye, Belize*

The multiple uses of a stone tool can be observed in numerous ways in the archaeological record, including tool form, reduction sequence and use-wear analysis. Collectively, these criteria can identify a technological strategy employed to extend the overall use-life of lithic tools in an assemblage, specifically when access to raw material or manufacturing skills may be lacking. As such, multiple tool use incorporates notions of maintainable technology, flexibility and versatility of

design, recycling, and curation. The Maya lithic assemblage from Marco Gonzalez, Ambergris Caye, Belize provides an excellent example of multiple tool use in a coastal environment.

**Stemp, W. James [108]** *see* Menzies, Adam

**Stenborg, Per (Göteborg University)**

[68] *Survival of the Opportunist?: Language and Identity in the Borderlands of Expanding Economic Systems*

In this presentation I will discuss how the benefits of adaptation and integration may relate to struggle for self-preservation in the borderlands of large economic systems. The examples will mainly be drawn from research on the southern sector of the Inca territory. I will compare the situation in the South Central Andes with our present knowledge on pre- and protohistorical processes in the Amazon. The more general issue of how archaeologists may approach questions of ethnic and linguistic differentiation in pre- and proto-history is also addressed.

**Steneck, Robert [119]** *see* Bourque, Bruce

**Stenger, Alison [127]** *see* Poetschat, Cathy

**Stephens Reed, Lori (Animas Ceramic Consult)**

[48] *A Sourcing Study of Early Pithouse Period Ceramics and Raw Materials in the Burro Mountains, Southwestern New Mexico*

An assemblage of reconstructible Alma Rough vessels was recovered on the floors of two pithouses from the Power Site in the Burro Mountains, Southwestern New Mexico. A raw materials reconnaissance of the area was undertaken to research the exploitation of local clay resources by Early Pithouse period potters. Residual and alluvial clays were collected and processed to assess their suitability for pottery making. Multiple samples from the Alma Rough vessels and collected clays were refired and submitted for both petrographic and Neutron Activation Analysis. The use of multiple techniques for sourcing is discussed and interpretations of the study are presented.

**Stephenson, Keith [143]** *see* King, Adam

**Steponaitis, Vincas (University of North Carolina) [165]** *Discussant*

**Sterling, Kathleen (University of California, Berkeley)**

[153] *Inventing Human Nature*

The archaeological discoveries of the late nineteenth century along with the publication of The Origin of Species changed the question of what it means to be human and what separates us from other creatures from a theological question to a scientific one. The Paleolithic is often considered the point at which human evolution "finished," and the behaviors and social structures of this period are what is natural for us. Our assumptions about gender, family life, etc. are normalized by the anthropologist's authority and clearly shaped by modern ideals, but are formed with no more physical evidence than areas we avoid such as spirituality and ritual life.

**Sterling, Sarah (Portland State University)**

[80] *The Economics of Social Complexity: Centralization and Taxation as a Means of Offsetting Environmental Unpredictability in Ancient Egypt*

The Egyptian Archaic period (ca 3100–2600 BCE) is characterized by the onset of unpredictable Nile flood volumes (a proxy indicator of environmental abundance), such as had not been experienced for the previous four millennia. The Archaic period coincides with the development of increasingly elaborate mortuary and ceremonial traditions, coincident with developed centralized storage and the earliest documented incidences of taxation. It is argued that taxation and potential employment in the mortuary and ceremonial "industries" served to offset the environmental unpredictability introduced by fluctuating Nile flood events and, as a by-product, facilitated an increase in monumental constructions.

**Stern, Ben [46]** *see* Forster, Marcus

**Sterner, Judy (Alberta College of Art & Design)**

[85] *Castedness and Specialization in the Mandara Mountains of Cameroon and Nigeria*

Ethnoarchaeological research conducted in the Mandara Mountains suggests that castedness is best seen as a continuum of degrees of social differentiation associated with specialist craft production. Whether endogamous or not, specialists are always to a greater or lesser extent

differentiated from other members of society. The societies themselves may also be viewed on a continuum from the near egalitarian to the chiefdom. Specialists may monopolize many crafts and professions or practice only the core crafts: iron metallurgy and potting. This package has some potential to be archaeologically visible. However, it is reconstruction of specialization rather than caste that is of significance for the understanding of social dynamics and evolution.

**Sterneke, Farina (University of Southampton)**

[150] *An exploration of Middle Pleistocene Hominid Behaviour in Relation to the Utilization of Non-Flint Raw Materials*

The study of raw material is a central concern in Palaeolithic archaeology and has provided information on transportation patterns as well as manufacturing choices. Attention has focused almost exclusively on flint. However, in many European countries the Palaeolithic use of quartzite in the absence of good quality flint is well-documented. But, how are we to interpret the choice of non-flint raw materials such as quartzite as the dominant raw materials for lithic production in terms of the technological and social behaviour of Middle Pleistocene hominids? The Quartzite Palaeolithic of Germany serves as a case study for the exploration of the relationship between hominids and their choice of lithic raw materials.

**Stettler, Heather (SWCA, Inc. Environmental Consultants)**

[105] *Temporal Markers of Late Prehistoric Occupations in the Eastern Great Basin*

Desert Side-notched projectile points and Brown Ware ceramics have been suggested as diagnostic of Numic-speaking groups, and potentially diagnostic of Numic expansion into the eastern Great Basin. Using regional data compiled during the Kern River 2003 Expansion Project, these two artifact types are tested for their utility as temporal markers in the eastern Great Basin. DSN points are somewhat accurate markers of post-1200 B.P. occupations, and Brown Ware ceramics are reasonably accurate markers of post-1400 B.P. occupations. The two artifact types together are moderately accurate predictors of Late Prehistoric/Protohistoric occupations.

**Stevens, Michelle N. (Comanche National Grassland)**

[17] *Late Prehistoric Land Use Patterns on the Southeastern Colorado Plains*

The southeastern Colorado Plains has been a cultural crossroad throughout much of the late prehistoric period. Recent archaeological survey conducted near the Oklahoma and New Mexico borders has increased the knowledge of this period. Late prehistoric settlement and land use patterns in this culturally diverse and surprisingly topographically varied region are discussed in light of this new data.

**Stewart, David (Texas A&M University)**

[142] *Gender Relations and the Sea: Women's Voices from Maritime Gravestones*

Gravestones erected by maritime mothers and widows to commemorate sons and husbands who went to sea and never returned provide revealing insights into gender relations in the maritime world. This study analyzes over 200 eighteenth- and nineteenth-century gravestones from the United States and Great Britain that were commissioned by maritime women. Sentiments expressed on the stones include sorrow, anger, and frustration with the uncertainties of maritime life. In addition, gravestones served as a form of public performance to call attention to the huge loss of life involved in seafaring and petition for reform.

**Stinchfield, Holly (Colorado State University)**

[136] *Architecture and Community: An Analysis of Residential Structures from Late Intermediate Period Sites on the Bolivian Altiplano*

The built environment both influences and is influenced by the people who inhabit it. Thus, the physical structure of a settlement can be helpful in deciphering the social structure of a community. For this project, the architecture of two Late Intermediate Period sites located on mesas in the Department of Potosí, Bolivia, was mapped and analyzed. Issues such as crowding, separation of public and private space, and effects of environmental conditions were addressed in the analysis. In addition, the available cultural historical literature was examined to assist in interpreting the connection between the architecture and social structure at these sites.

**Stinson, Susan (University of Arizona)**

[158] *Hohokam Domestic Ritual, Gender Roles, and the Identity of the Household*

Household ritual is tied to the study of gender in important ways. Ethnographically, both women and men participate in household-based ritual activities. This paper explores the everyday ritual practices involving anthropomorphic ceramic figurines found in houses which were occupied from



300 B.C. to A.D. 700 throughout the Hohokam region. I examine gender roles within households at Snaketown and the Grewe site by means of a new method for identifying the sex of figurine producers, which utilizes fingerprints impressed into figurines by individuals during construction. By linking this sex data with figurine function, I define gendered roles within Hohokam household ritual.

**Stiver Walsh, Laura (Proyecto Pueblo Viejo Teposcolula)**

[152] *Mixtec Urbanism: Architecture and Artifact Distribution Patterns at a Postclassic Center*  
Postclassic Mixtec settlements in Oaxaca, Mexico, are known for unimpressive architecture and dispersed residences that contrast with ethnohistorically known sociopolitical complexity and influential artistic achievements. However, recent surveys have been documenting exceptions, including the capital of the Teposcolula kingdom. This paper focuses on the Pueblo Viejo of Teposcolula, highlighting distributional analyses based on intensive survey. Patterns in access to fancy pottery and obsidian, differences in investment of labor in architecture, and distinct functional zones reveal a monumental and decidedly urban center. These archaeological data complement the ethnohistorical picture of highly stratified Mixtec society and expand our understanding of Mesoamerican urbanism.

**Stock, Kyle (University of Michigan)**

[5] *Changing Flakes?: Examining Spatial and Temporal Trends in Lithic Procurement and Production Across North-Central Lower Michigan*

Recent research on prehistoric adaptations in North-Central Lower Michigan, a region traditionally considered marginal, has found evidence of activity throughout the Late Woodland period. Most notably, inland groups developed an intricate regional ritual system entailing inter- and intra-tribal monument centers in response to the unique social and environmental context of the late Late Woodland/Late Prehistoric. Temporal and spatial trends in lithic procurement and production reveal much about this ritual system. Earlier lithic materials provide a control on distribution patterns while comparisons of lithic materials from distinct Late Prehistoric sites illuminate the role these sites played in the ritual system.

**Stockett, Miranda K. (University of Pennsylvania)**

[86] *Practical Identities and Identities in Practice: Applying Feminist Theory to Archaeological Data*

Recent forays in feminism emphasize the importance of identity and difference, but few specify any particular means of applying them to archaeological data. Herein, I propose a model for investigating the construction of social difference and expression of identities. More explicitly, I focus on the ways that built space and material culture shape, and are shaped by, interaction between members of a group. The resultant practices are argued to generate affiliations based on kinship, gender, age, sex, and occupation. Emphasizing both mundane and extra-ordinary practices, I apply these feminist-inspired ideas to data from the site of Las Canoas, Honduras.

**Stodder, Ann L.W. (Field Museum)**

[94] *Meta-analysis and Human Biology of the Prehistoric Southwest*

This meta-analysis of osteological data from the Southwest encompasses assemblages from about 150 sites or localities. While health varied between contemporary communities, trends in life expectancy, infection, stature and anemia reflect the broadly recognized Pan-Southwestern cultural trends remarkably well. Health improved with the adoption of horticulture and throughout the expansion and differentiation of the Anasazi, Hohokam and Mogollon, until about 1150. Between 1150 and 1350 life expectancy and female stature declined, anemia and infection increased. Biological recovery is evident in reduced anemia and infection and increased life expectancy and stature after the abandonment of the Colorado Plateaus until Spanish contact.

**Stokes, B. Jo (University of Kentucky)**

[116] *Pre-Columbian Caribbean Coastal Adaptations: Maritime Economy at the Rio Nuevo Site, Jamaica*

The Rio Nuevo Site is a late-prehistoric, intensively occupied Taino village site located on the North Coast of Jamaica. Recent investigations of this site have provided insight into the subsistence strategies utilized by its inhabitants. Zooarchaeological, botanical, ceramic, and lithic evidence suggest a focus on a maritime economy supplemented by domesticated plant use. Implications of this research suggest not only a dense population supported by a maritime economy, but also that a complex system of trade and regional exchange centered on maritime resources existed between this site and its inland contemporaries.

**Stokes, Wendy (SWCA, Inc. Environmental Consultants)**[105] *Early Archaic Period Adaptations to Wetlands in the Eastern Great Basin*

Investigation of the Dust Devil Site (Site 42JB394) for the Kern River 2003 Expansion Project revealed a stratified, deeply buried Early Archaic period site. While most Archaic period archaeological sites that have been excavated in the Great Basin are in caves, the Dust Devil Site is an open-air site with high quality data that has been well-preserved by post-depositional formation processes. The stratification of this site provided data that show changes in activities through time and indicate Early Archaic period adaptations to a wetlands/marshlands environment. These data help refine our understanding of Early Archaic period adaptations in the Eastern Great Basin.

Stoll, Anne [162] *see Ciolek-Torrello, Richard*Stone, Connie (Bureau of Land Management) [35] *Discussant*; [69] *see Huang, Jennifer*Stoner, Wes D. [95] *see Thompson, Victor D.***Stoner, Jr., Edward J. (Western Cultural Resource Management, Inc.)**[88] *Lithic Conveyance Zones and Early Land-use Strategies in the Eastern Great Basin: An Examination of the Lithic Terrane*

The term "lithic terrane" refers to the knappable stone accessible to prehistoric populations in a region. Lithic terranes can be examined by plotting known toolstone sources on geological maps in relation to archaeological sites at local, extralocal, and regional scales. This technique, along with various geochemical and petrographic analyses of artifacts from sites and toolstone sources, is capable of elucidating mobility patterns of Paleoarchaic groups and of identifying and refining the nature and location of the lithic conveyance zones and foraging territories of the earliest occupants of the Great Basin.

Storey, Glenn [40] *see Whittaker, William*Storey, Rebecca [72] *see Harrison-Buck, Eleanor*Storkett, Miranda [38] *see Ausec, Marne***Stosel, Victoria (CSULA)**[162] *An Examination of Three Contemporaneous Sites on San Nicolas Island Through Meat and Protein Analysis*

Located within the California Bight is a group of eight islands, collectively known as the Channel Islands. San Nicolas Island, the most western island, offers little in terms of terrestrial enticement to potential inhabitants, but has a wealth of sea resources of dietary importance. The shell middens on San Nicolas are well preserved and present an unparalleled opportunity to reconstruct this portion of the Nicolen diet. Through the use of meat and protein analysis, it is possible to determine the most economical species, as well as dietary favorites. This type of analysis also assists in determining possible periods of overexploitation.

**Stout, Dietrich (George Washington University)**[140] *Technology, Context and Meaning in Human Evolution: The Contribution of Ethnoarchaeology*

Although ethnoarchaeology focuses on the material processes and residues of cultural activity, its potential implications are far broader. Human evolutionary studies in particular stand to gain from this broader perspective. Research among modern stone tool-makers in New Guinea, for example, highlights the importance of identity, motivation and meaning in the acquisition of traditional technological skills. Placed in this context, the emergence of increasingly skill-intensive foraging and tool-making techniques in prehistory becomes an important indicator of evolving human cultural and cognitive capacities. Ethnoarchaeologists can contribute to this project by further exploring the context and mechanisms of technological reproduction in traditional settings.

**Strezewski, Michael (Indiana University-Purdue University Fort Wayne)**[40] *Prehistoric Belief in an Afterworld Journey: Mortuary Evidence from the Mississippian Period in Illinois*

Among many historic period peoples of the Plains and Eastern Woodlands, the journey to the afterlife was thought to be a dangerous one. Ethnohistoric sources report that weapons were often placed with the deceased to guide them on the spirit trail. Analysis of 841 Mississippian period burials (A.D. 1000 - 1450) from eight mortuary sites in the central Illinois River valley

suggests that similar beliefs were present prehistorically as well. Study of the incidence, placement, and type of lithics placed with the dead indicates that many may have served as symbolic weapons. These "weapons" were interred with men, women, and children.

**Strickland, Albert [60]** *see Lohse, Skip*

**Stroulia, Anna (Indiana University-Purdue University Fort Wayne)**

[100] *Stones Under Scrutiny: Problematizing Aegean Ground Stone Tools*

Unlike pottery or chipped stone tools, ground stone tools have never been a popular object of study among Aegean prehistorians. When they attract scholarly attention, ground stone tools are usually approached in a superficial, descriptive manner and with the implicit assumption that they represent straightforward pieces of evidence that do not require further scrutiny. In this paper I will attempt to present a more complex picture of this neglected material on the basis of detailed study of a number of Neolithic assemblages.

**Stuart, Glenn (Arizona State University)**

[145] *Pollen Analysis of a Mesoamerican Wetland Agricultural System: Implications for Pre-Hispanic Sociopolitical Development*

The use of wetlands for agricultural production was common to various areas of pre-Hispanic Mesoamerica, but the sophistication of these cultivation systems and their productive capabilities varied widely. Systematic investigation of planting platform and canal features confirms the existence of an elaborate pre-Hispanic wetland agricultural system in the Tequila Valleys of Jalisco, Mexico. In this paper, I discuss how pollen analysis confirms the agricultural origin of these features, allows documentation of their age, and facilitates discussion of water management. Implications of these derived data concerning resource use, tribute, productive potential, agricultural intensification, and sociopolitical development are then briefly explored.

**Stumbaugh, Della [124]** *see Beisaw, April*

**Sugiura, Yoko (UNAM)**

[157] *Climatic Fluctuation and its Impact on Human Settlement: A Lacustrine Site (550-900 DC) in the Upper Lerma Marsh, Toluca*

Recent palaeoenvironmental researches carried out in the Chignahuapan Marsh, in the Upper Lerma Basin, Central Mexico, revealed that at around 550-650 DC, a drier climate prevailed. Coincident with this climatic condition, archaeological evidences suggest the constructions of more than a 100 mounds, through radical modification of lacustrine landscape. The apogee of the construction took place during the Epiclassic period, when a lacustrine society flourished. Then, at around 900 DC, coincident with another climatic fluctuation recorded at the beginning of the Postclassic period, the inhabitants abandoned this mode of life, sustained by delicate interaction and balance with its surrounding lacustrine environment.

**Sugiyama, Nawa (ASU)**

[95] *Cahokia and Oneota Iconographies: A Link to the Ideologies and Social Organizations of the Southeast Ceremonial Complex*

Contemporaneous Oneota and Cahokia populations shared some aspects of ceramic iconography on Oneota jars and Ramey-Incised Cahokian ceramics, but differed significantly in others. The distinct use of central and adjacent motifs and their relation to ideological ties relies heavily on the differences in the degree of socio-political hierarchy in the two regions. By further examining the use of these iconographic similarities in a broader scale, a closer interpretation of ideologies based on iconographies and a better understanding of design layout can be gathered.

**Sullivan, Alan (University of Cincinnati)**

[135] *Vessels unto Sherds into Data: The Inferential Challenges of Working with Residual Archaeological Assemblages*

Ethnoarchaeological studies have profitably investigated how different abandonment modes affect ceramic assemblage formation at various anthropological levels of analysis, such as household or village. The archaeological study of abandonment, however, illustrates the centrality of constructing appropriate units of analysis for investigating the origins of sherd assemblages. With three sites from the Grand Canyon area, each abandoned under different circumstances, I show how, depending on which recovery contexts are examined, dramatically different conclusions regarding the causes of ceramic assemblage variation can be developed. In a strange twist, these archaeological "cautionary tales" have implications for expanding the research agendas of ceramic ethnoarchaeologists.

**Sullivan, Lauren (University of Massachusetts at Boston) and Fred Valdez, Jr. (University of Texas at Austin)**

[159] *Reflections on R.E. Smith's Influence: A Perspective from northwestern Belize*

R.E. Smith's ground breaking publication on the ceramics of Uaxactun set the standard for early ceramic analyses. His ceramic descriptions and associated phase names remain an important part of most ceramic studies conducted in the Maya area. This paper will focus on how current ceramic analyses, specifically in northwestern Belize, have been influenced by this early work. In particular, the evaluation of regional interaction and organization, as shaped by Smith's assessment of ceramic phases, will be considered.

**Sunseri, Jun Ueno (University of California, Santa Cruz)**

[161] *The Fauna from Paa'ko: Continuity and Innovation in Early Colonial Puebloan Foodways*

Colonizers entering the ethnically diverse Rio Grande Valley included Europeans; mestizos and central Mexican Indians, the latter strongly influencing colonial cuisine. Paa-ko (LA-162), a pre-Pueblo Revolt site on the eastern slopes of the Sandia Mountains, is a reoccupation of an earlier, abandoned pueblo. It displays innovative metallurgical technology, new uses of precolonial architectural settings, and remains of native and introduced animals. A central research question is thus its inhabitants' ethnic affiliation(s). Animal use patterns suggest that Paa-ko represents indigenous adaptation to new colonial circumstances, within an enduring Puebloan framework. This includes continued Puebloan ritual practices, despite evidence for missionization.

**Surovell, Todd [106] see Knell, Edward**

**Suzuki, Tetsuya [14] see Yonekura, Kaoru**

**Swain, Todd [138] see Canaday, Tim**

**Swanson, Steve [139] see Anyon, Roger**

**Swayne, Nikki [129] see Britain, Lara**

**Sweely, Tracy (Associate, University of Colorado Museum) and Gerald Trainor (Belize Electromagnetic Explorations Project)**

[134] *The Belize Electromagnetic Explorations Project (BEMEP): Results from the 2004 Field Season*

BEMEP uses the geophysical technique Electromagnetic Induction (EMI) to locate remains not visible at the ground surface. In 1996 a pilot study using the technique at the site of Chau Hiix, Belize, successfully located evidence for invisible settlement consisting of limestone, non-platform floors, trash pits and episodes of bedrock mining. During the 2004 BEMEP field season the technique was again used to survey for evidence of invisible settlement at Pusilha, Minanha and Baking Pot. Results of the surveys conducted at the three sites will be presented and a brief comparative examination of the results from each site will be given.

**Swenson, Edward (University of Chicago / The Field Museum)**

[18] *Adaptive Strategies or Ideological Innovations? Interpreting Sociopolitical Developments in the Jequetepeque Valley of Peru during The Late Moche Period*

Environmental perturbations are thought to have led to the reconstitution of traditional belief systems and hierarchical political relations on Peru's North Coast during the Late Moche Period. Ideological transformations are thus interpreted as reactive, adaptive responses to social and ecological disruptions. Nevertheless, religious practices directly shaped the formation of alternative power structures in prehistoric Peru. This is evident in Late Moche Jequetepeque, which witnessed the proliferation of non-elite ceremonial sites that structured distinctive new forms of political organization. The Jequetepeque case study is mobilized to critique normative interpretations of the role of religious ideology in cultural adaptation and sociopolitical realignment.

**Szmidt, Carolyn (University of Toronto)**

[44] *The Middle to Upper Palaeolithic Transition: Examining the Archaeological Record of Mediterranean France*

The Middle to Upper Paleolithic transition has not been examined in detail in Mediterranean France. This, despite the fact that the Aurignacian is found at a number of sites in this region and that there are numerous Mousterian sites. Mediterranean France very likely acted as a passageway, enabling humans to reach more westerly regions, making it a key region to consider in discussions of this transition and of potential Neanderthal-Modern human interactions. In this

paper, the transition in this region will be discussed by looking at the archaeological record in a regional and comparative way.

**Szremski, Kasia (University of Chicago)**

[70] *Virtual Archaeology: The Application of GIS Technology in Unit Excavation*

The paradox of archaeology is that one must destroy what one discovers. However, through the use of GIS technology, this problem can be largely ameliorated. With a digital camera and the appropriate software, it is possible to create a virtual record of an excavation, which not only facilitates in the speed and accuracy of mapping encountered features, but also allows the investigator to go back to and study previous levels of excavation. This presentation aims to demonstrate how the application of GIS methodologies aided in the excavation of a 5 meter by 5 meter unit at the Preceramic site of Caballero in the Fortaleza Valley, Peru.

**Takakura, Jun (Hokkaido University) and Masami Izuho (Sapporo Buried Cultural Property Center)**

[4] *Identification of Flaking Techniques Through the Analysis of Lithic Crack Velocity*

To achieve the identification of flaking techniques (knapping materials: metal, stone, antler and wood, and knapping techniques: pressure, indirect percussion and direct percussion), we focus on fracture wings, which are microscopic markings found on the fracture surfaces of a wide range of brittle solids including obsidian. Fracture wings are very reliable registers of lithic crack velocity. Our several experiments demonstrate that a strong association between crack velocity and flaking techniques does in fact exist. We attempt to undertake the identification of flaking techniques in the selected artifact classes from paleolithic assemblages of Northern Japan.

**Takakura, Jun [14]** see Nakazawa, Yuichi

**Tam, Manuel [99]** see Klaus, Haagen

**Tamari, Tal (CNRS/ULB)**

[85] *Linguistic Indicators of Social Status: Designations for Endogamous Specialists in Savannah West*

Many societies of sub-Saharan Africa are characterized by ritually and professionally specialized, hierarchically ranked endogamous groups (specifically artisans and musicians, in the case of West Africa). Linguistic correlates of this social status include: designations whose etymologies, in and of themselves, suggest extra-ordinary ritual powers or behavior patterns; a double series of designations for the practitioners of certain activities, only one of which refers to their technical aspects; simultaneous presence of words that refer to two or more groups, and ones that designate individual professions. However, linguistic evidence is not always a sufficient basis for inferring endogamous status.

**Tamima, Mourad [107]** see Funari, Pedro Paulo

**Tapley, Ian [144]** see Evans, Damian

**Tarkanian, Michael (MIT)**

[42] *Ancient Mesoamerican Rubber Processing and Use: Balls, Sandals, and Tool Hafting*

Ancient Mesoamericans were processing rubber by 1600 BC to make items such as sandal soles, bands to haft tools to handles, and balls for the Mesoamerican ballgame. The processing regimes developed enabled Mesoamericans to tailor various mechanical properties of rubber to suit the requirements of specific applications. Rubber balls could have elasticity maximized, sandal soles could be selectively processed to resist wear, hafting bands equipped to absorb shock. Studying the range of rubber properties available can provide insight into ancient rubber use, such as the performance of the ball in the ballgame and the physical realities of playing the game.

**Taschek, Jennifer (San Diego State University) and Joseph Ball (San Diego State University)**

[148] *Northern Yucatec Maya in Early Postclassic Central Western Belize: "Concrete" Evidence from the Upper Belize Valley*

Specific varietal-level ceramic and stylistically distinctive artifactual data recovered at the upper Belize Valley sites of Buenavista del Cayo and Nohoch Ek provide solid evidence of small-scale population movements into the region by what appear to have been family-size groups of individuals from the far northwestern lowlands of Yucatan or Campeche sometime over the tenth through twelfth centuries. We present these data and consider their potential meaning and

significance in light of new evidence from Acanmul, Campeche for aggressive southerly movements into the central peninsula by northern plains "Itza" during this same period.

**Taube, Karl (Department of Anthropology, U.C. Riverside) and Marc Zender (Peabody Museum, Harvard University)**

[54] *American Gladiators: Ritual Boxing among The Classic Maya*

In Classic Maya studies, a great deal of attention has been paid to the preColumbian ball game. However, the ball game certainly was not the only competitive sport performed by the ancient Maya. Yet another important form of sport was ritual boxing, with the players frequently wearing heavy masks and other protective gear. In these events, the performers often wielded a variety of weapons, including conch shells, stone spheres wrapped in cloth, manoplas and the so-called padlock stones. Although a form of blood sport, Classic Maya boxing thematically overlapped with the ritual ball game. As with the ball game, boxing also related to rain and agricultural fertility. Although this study will focus upon Classic Maya writing and art, the boxing complex will be discussed in the broader context of ancient Mesoamerica, including the Formative Olmec and ancient Oaxaca.

**Taylor, Amanda K. (University of Washington) and Christina M. Giovas (University of Washington)**

[4] *Naive Foragers: Modeling Resource Exploitation in Newly Colonized Landscapes*

Traditional foraging theory models assume foragers possess perfect knowledge of the environment as a basis for predicting optimality in resource exploitation. This assumption may be inappropriate for situations in which foragers colonize radically different environments, as occurred when tropical Polynesians migrated to temperate New Zealand. Here we develop a model incorporating principles of evolutionary ecology to predict forager behavior in novel settings. We test this model using archaeological data from island contexts and assess how effectively it predicts the subsistence behavior of human colonizers. We conclude by considering the ways in which the model augments foraging theory applications to archaeology.

**Taylor, Dawa [74] see Poseyesva, Lanell**

**Taylor, Michael W. (Oregon Arch Society), James D. Keyser (U.S. Forest Service) and Phillip Cash (University of Arizona)**

[137] *The Roles of Women in Columbia Plateau Rock Art*

The Columbia Plateau region of North America has long been ethnographically known as an area where access to the supernatural is very egalitarian. To date the ethnography relating to women's vision questing and shamanism - and thus ultimately to their role as makers and users of rock art has not been summarized. The authors surveyed Columbia Plateau ethnography and oral tradition to document women's participation in these cultural institutions and to find instances where women were known to have produced rock art. The results support a basically egalitarian system, albeit with differences noted for various cultural groups within the region.

**Taylor-Montoya, John (Southern Methodist University)**

[17] *Hunter-gatherer technology during the Pleistocene/Holocene Transition in North America: a view from the Prairie-Woodland ecotone on the Southern Plains periphery*

This paper explores how the late Paleoindian archaeological record of the Prairie-Woodland ecotone on the Southern Plains periphery offers new insights into the Pleistocene/Holocene transition in North America. New data from the Gault site, Texas along with other sites on the Southern Plains will be used to explore this issue via a diachronic examining the organization of lithic technology and ecology data at these sites.

**Teague, Lynn**

[154] *Gwinn Vivian at the Arizona State Museum*

Gwinn Vivian was important in shaping the development of the Arizona State Museum over several decades. When he began at ASM, it was a relatively small institution with exhibits that were remarkable chiefly for their longevity and archaeological activities that were focused largely on highway salvage. His efforts were centrally important in developing an institution with greater emphasis on public education and much broader programs in archaeology, particularly in cultural resource management. Some of his many contributions to the development of the institution and its programs will be summarized.

**Teeter, Wendy Giddens (UCLA Fowler Museum of Cultural History), Cindi Alvitre (UCLA World Arts & Cultures) and John Morris (Belize Institute of Archaeology)**

[33] *Who Will Save the Orphaned Collections*

Curation costs continue to rise and this impacts policy concerning long-term collections curation by repositories. But what about the collections that haven't entered the 'system' yet, usually in infested cardboard boxes, perhaps uncataloged, and with scant field information? Too often archaeologists do not consider the long-term impact of the collections they create on repositories inside and outside the US. While ethical responsibility is easy to identify, it has no monetary value. Based on firsthand situations, this paper looks at what can be done to ensure that once cultural resources leave the ground they receive even the most basic curatorial standards.

**Tennant, Edward W. (Michigan Technological University)**

[89] *Old Longyear City in 3D: Virtual Reconstruction of a Polar Coal Mining Town*

Longyearbyen is currently the largest settlement on the island of Spitsbergen, located 800 kilometers north of Norway. Michigan industrialist John Longyear began mining coal here in 1906. This paper focuses on the virtual reconstruction of the historic town site based on Total Station and GPS mapping conducted during August, 2004. Topics discussed will include the growing accessibility of GIS applications and 3D modeling to answer questions concerning structure identification based on historical documentation, spatial comparisons between sites, control of archaeological data (i.e., for report preparation, tourism, site protection, etc.) and the ability of individuals to inexpensively employ these techniques.

**Terry, Karisa [28]** *see Buvit, Ian*

**Terry, Richard [73]** *see Webb, Elizabeth; [50] see Bair, Daniel; see Wright, David; see Burnett, Richard; [73] see Moriarty, Matthew D.*

**Tews, Amber (Idaho State University), Aaron Harker (Idaho State University) and Shelley Ames (Idaho State University)**

[71] *Deciphering Sanak Island Subsistence*

Excavations on Sanak Island, Alaska, revealed micro-geographical differences in fauna. The faunal assemblages are dominated by birds, which is different from what has been seen on the western Alaska Peninsula. Because of its geographical location, it comes as no surprise that marine mammals comprise 99 % of the mammalian remains and probably dominated subsistence. However, it is surprising that terrestrial mammals, which are not found on the island, make up the other one percent. The island has several salmon runs which were exploited by the ancient Aleuts, but cod and halibut were also taken in large numbers. Littorines and other rocky intertidal shellfish dominate the midden remains and served as a resource buffer in the diet of ancient Aleut living on the island.

**Thacker, Paul (Wake Forest University)**

[62] *Stone Boiling, Hide Smudging, and Ochre Production: Upper Paleolithic Thermal Technology at Vale de Obidos, Portugal*

Diverse activities employing Upper Paleolithic thermal technology are manifest across the large open-air residential campsite at Vale de Obidos. Discard piles of fire-cracked rock from stone boiling are located near large stone-lined hearth features. An analytical technique using magnetic susceptibility provides insight into wind direction during site occupation. Pinus and Erica branches were burned in a pit structure, possibly for smudging. Tool residue studies and spatial analysis indicate that hematite was used during hide scraping and processing. Much of the hematite at Vale de Obidos was produced by thermal alteration of local goethite-rich sandstones. Studies of Upper Paleolithic technological organization, traditionally focused on lithic and organic tool technologies, should recognize the knowledge and skill evident within these complex thermal technologies.

**Thiel, J. Homer [161]** *see Waters, Jennifer A.*

**Thomas, Chad Ryan (Arizona State University)**

[143] *Leadership and Dual Organization: Cross-Cultural Insights into Mississippian Organization*

The relationships among leadership, dual organizational principles, and other dimensions of culture are explored through a HRAF study of 20 cultures worldwide, as well as more detailed examinations of several ethnographic cultures. Resulting patterns are then applied to the late prehistoric Mississippian cultures of North America, suggesting several conclusions about Mississippian organization and leadership.

**Thomas, Edith (Northern Arizona University)**

[74] *Native Americans and Museums: A Native American's Perspective on Why More Indigenous People are Needed Within the Museum Community*

The 1990 Native American Graves Protection and Repatriation Act was human rights legislation passed to give dignity and respect to Native American human remains and other objects curated in museums all across the country. It has been fourteen years since the implementation of N.A.G.P.R.A., and old ideologies or pre-N.A.G.P.R.A. perspectives still exist within the museum community. Native American human remains, sacred objects, and objects of cultural patrimony are still regarded as scientific specimens, data, and museum possessions. The lack of Native Americans trained and employed in museum and other related fields is a contributing factor to this problem.

**Thomas, Elaine [39]** see *Bendremer, Jeffrey*

**Thomas, Julian (Manchester University)**

[153] *Freedom, Choice, Individuality, and the Neo-Liberal Agenda*

The most insidious ideologies are those that entwine themselves around what are commonly held to be humane and progressive values and aspirations. Freedom, personal autonomy and choice are often connected with the realization of human potential and the overthrow of repression, but they are also implicitly opposed to community, tradition and altruism. Archaeologists often approve accounts of the past in which humanity is emphasized, and this is well and good. But the potential pitfall of 'touchy-feely' humanism is that it smuggles in the free-market, unfettered-competition values of neo-liberalism.

**Thompson, Kerry (University of Arizona)**

[74] *What Exactly is Indigenous Archaeology?: Defining-Indigenous Archaeology for the 21st Century*

The participation of indigenous scholars changes the function of archaeology as it is practiced today. With new goals derived from old traditions, indigenous archaeologists work to use scientific knowledge to advocate for tribes. This paper reviews current indigenous and non-indigenous perceptions of indigenous archaeology and offers new ideas on the multiplicity of indigenous archaeology. For today's archaeology to be mutually beneficial to both the archaeological community and the living descendants of those that we study, archaeologists are obligated to consider the multiple histories that exist within the general American indigenous community.

**Thompson, Lauri (Dept. of Anthropology, University of Texas at Austin) and Fred Valdez (Dept. of Anthropology, University of Texas at Austin)**

[152] *Prehistoric Maya Potbellies: A New Analysis*

Prehistoric Maya potbelly sculptures (boulders) have been of great interest for many decades. Most occur in the highlands and piedmont of the Pacific Coast in Guatemala and El Salvador. The specific function and dating of these monuments has been of particular concern to researchers. This paper presents a summary of data attempting to place the sculptures into stylistic groups that may allow for hypothesizing general function(s). The excavation of a ceramic potbelly figure in northern Belize may provide hard evidence for the dating of certain potbelly style(s) and demonstrate the use of this style/manifestation in a mode beyond stone sculpture.

**Thompson, Lauri [108]** see *Saul, Julie*

**Thompson, M. Scott (Arizona State University)**

[69] *The Accumulation of Los Gigantes*

This poster explores the use-life history of roomblocks in a Post-Chacoan (circa AD 1225 - 1275) community of the El Morro Valley, New Mexico. It examines the resident population and the occupation span of two small pueblos within the prehistoric Los Gigantes cluster. These pueblos were subjected to an intensive stratified random sampling procedure modeled after the Sand Canyon small site testing program. Population and occupation length estimates are calculated through a ceramic accumulation analysis. Results suggest that roomblocks within El Morro communities were occupied for remarkably short periods of time during the mid-thirteenth century.

**Thompson, M. Scott [69]** see *Kelly, Sophia*



**Thompson, Randy (Caribou-Targhee National Forest)**

[36] *Trade or Transport? The Occurrence of Obsidian from the Malad, Idaho Source in the Great Plains*

This research traced the obsidian from the Malad, Idaho source throughout the Rocky Mountains and on to the Southern Plains. The patterns evident from this analysis indicate a long-term transport of material from the great Basin into the Southern Plains. Although long distance trade is the most plausible explanation for the discovery of obsidian from this source across the landscape, this research does not rule out the possibility of direct transport by the users of this material.

**Thompson, Victor D. (University of Kentucky) and Wes D. Stoner (University of Kentucky)**

[95] *Slice It and Digest It: Petrographic and Chemical Analysis of Late Archaic Ceramics from Two Shell Ring Sites on the Southeastern Coast*

Excavations at the Sapelo Island Shell Ring Complex in Georgia produced a minority amount of what appears to be Thom's Creek ceramics. Thom's Creek ceramics are not known to occur this far south (Williams and Thompson 1999). This study investigates if the ceramics found at Sapelo are more closely related to South Carolina wares or the local St. Simon's type. In order to address this question, the authors conducted a petrographic and chemical characterization study on a sample of sherds. This research constitutes a pilot study that addresses the viability of these techniques for the sourcing of Late Archaic ceramics and provides insight into hunter-gatherer cultural interaction on the southeastern coast.

**Thulman, David (Florida State University) and James Dunbar (Fla. Bureau of Arch. Research)**

[106] *How Many Kinds?: Trying to Make Sense of Paleoindian Projectile Point Variation in Florida*  
Florida has produced hundreds of lanceolate points, but very few come from stratified sites, and none have been dated. This project attempts to test a recently proposed intuitive typology for Florida by examining the morphological variation of several hundred lanceolate points from public and private collections. One of the goals of this effort is to create a typology based on both intuitive and mathematical techniques and is a first step toward addressing questions of cultural continuity in Florida during the late Pleistocene.

**Thurston, Tina (SUNY-Buffalo)**

[38] *Solemn Treaties Both Sides Had Sworn: Rethinking the Barbarian vs. Civilization*  
Archaeologists worldwide are currently reframing core-periphery, world-system, and dependency/interaction concepts, i.e., the Olmec phenomenon has been reconstituted as highly varied and overlaid differently on various societies, and the Iron Age Celts, once considered peripheral and highly influenced by Mediterranean contact, are now deemed dynamically interacting and mutually influential with the "core." Despite such reinterpretations, Iron Age Scandinavia is habitually labeled a fringe region transformed primarily via Eurasian interactions. Rejecting traditional culture-historic concepts, I argue that internal class and factional conflicts catalyzed social change: interaction was only one of many legitimization tools, and influence traveled both to and from the "core".

**Tiesler, Vera (UADY)**

[72] *Funerary or Non-funerary? New Concepts in Identifying Sacrificial Behaviors and Meanings from Human Assemblages in Maya Archaeology*

After discussing current concepts and pitfalls in the regional interpretation of human mortuary assemblages, a set of osteotaphonomic and archaeological criteria is proposed to identify and reconstruct ritual behavior that involved sacrifice and posthumous treatments of the human body. Based on a set of concerted ritual steps and their material signatures, the model is employed in the study of two assemblages from the Maya Lowlands. Their interpretation brings together osteoarchaeological, ethnohistorical and iconographic information, leading to a broader discussion concerning presence, meanings, and identification of human sacrifice and associated body manipulations among the Maya.

**Tiesler, Vera** [72] *see Cucina, Andrea*

**Till, Jonathan (Crow Canyon Archaeological Center)**

[97] *The Cottonwood-Comb Wash Road Network: A Case Study of Structure and Agency in the Northern San Juan Region*

Roads are an important element of Chaco-era monumental architecture and social interaction.

This presentation focuses on the variation in road networks across the Northern San Juan, and what this variation indicates for the structure of communities in the region. Special emphasis is given to the Cottonwood-Comb Wash road network. 'Twins,' as they appear in natural and cultural features, may have structured the placement of roads and other features. Archaeological and ethnographic data are considered to suggest meanings ascribed to these places, and how these meanings may have influenced decisions to site cultural features in the landscape.

**Till, Jonathan [52]** *see Westfall, Deborah*

**Tinsley, Clayton (Binghamton University)**

[77] *Subsistence Economies: A View from West-central Ghana*

Building upon 20 years of research in west-central Ghana, a regional study and test excavation program began in 2001, to examine local political economic transformations in light of the trans-Saharan and Atlantic trade networks (AD 1000 - 1825). This ongoing research has amassed one of the largest faunal data sets from West Africa. Preliminary analyses have focused on animal resource utilization trends across the 866 km<sup>2</sup> Banda Region, throughout the periods associated with both the Saharan and Atlantic trade networks. Subsistence data from two "core" sites is being integrated with similar information from new regional testing (22 sites), in order to better understand subsistence economies over time throughout the entire region.

**Todd, Lawrence [27]** *see Kinneer, Christopher*

**Tokovinine, Alex [12]** *see Estrada Belli, Francisco*

**Toll, H. Wolcott (Museum of New Mexico - Office of Archaeological Studies), Peter McKenna (Bureau of Indian Affairs) and Marcia Truell Newren (Marcia Newren Glass)**

[154] *Always There, Often Overlooked: The Roles of Small Houses in the Chaco World*

In Gwinn Vivian's career of unparalleled length he has consistently emphasized the paramount importance of keeping 'small sites' in the complicated mix that was Chaco. We support that view, and examine both how those sites are essential to local and regional pictures, and how they contribute to another of Gwinn's recurrent themes, the diversity of the population of Chaco Canyon and the Chaco world. Much of what we know of Chaco, especially from the Chaco Project, comes from small house sites, but they are all too often overlooked in discussions of how Chaco "worked."

**Topic, John (Trent University)**

[68] *Nested Identities in Northern Peru*

Communities in complex societies situate themselves within a structure of identities characterized by increasing degrees of inclusivity. Understanding the nested nature of identity is a critical first step to the interpretation of identities before these were codified in colonial documents. Previously, I argued that the Huamachuco "ethnic group" was a level of organization that was developed by the Inca and was part of a larger administrative entity comprising three "ethnic groups," Huamachuco, Cajamarca and Huambos. Here, I explore the relationships between these inclusive identities and the local identities that were important in earlier times and persisted into the colonial period.

**Topping, Peter (English Heritage)**

[109] *The Real Deal: 3D Laser Scanning on Extraction Sites*

This paper will describe English Heritage's UK-first laser scanning of a prehistoric mine at Grime's Graves. An interactive 3D model has been created of the complex underground galleries which radiate from the central shaft, which will be joined to a digital terrain model of the surface earthworks creating a seamless fly-over of the mining complex and some of its subterranean workings. Detail as fine as tool marks cut into the chalk walls have been recorded. The software also allows precise quantification of extracted materials to be calculated, thus providing a tool for studying in detail the scale of ancient mining.

**Torrence, Robin (Australian Museum)**

[163] *Focusing on Sub-sources Improves the Big Picture of Obsidian Exchange in Melanesia*

The concentrated efforts of a small group of researchers using PIXE-PIGME to characterise a substantial sample, of obsidian artefacts from sites in Melanesia, has moved the study of exchange beyond the identification of "earliest" (c. 40,000 bp) and "most distant" (c. 4,700 km) contacts to a new concern with the specific identification of exchange mechanisms. A recent focus on the identification of small, localised, sub-sources has greatly improved regional histories

of long distance and intra-regional interactions. They have shown that control over resources played an important role in exchange, even in the apparent absence of hierarchical societies.

**Trachman, Rissa M. (The University of Texas at Austin)**

[86] *Manifestations of Identity: Feminist Guided Household Archaeology at the Site of Dos Hombres, Belize*

Feminist archaeology approaches provide unique opportunities to look at the archaeological record from diverse perspectives. As a principle in archaeological practice, it clearly directs what we ask in initiating our research. Subsequently we find ourselves challenged to discern social meaning from traditional archaeological data. This paper presents household research oriented toward questions of gender identities and the socialization of specific ideologies that was performed in the settlement area of Dos Hombres, Belize. The result is one perception of materialized identity expression in the daily lives of these ancient Maya.

**Trainor, Gerald [134]** see *Sweely, Tracy*

**Tratebas, Alice (Bureau of Land Management)**

[137] *Rock Art Depictions of Ancient Religious Concepts in Asia and North America*

The oldest rock art in North America may be linked to Asian rock art by shared themes that derive from ancient beliefs. Because religious concepts can have great stability and longevity, we may be able to link concepts in ethnographies and oral histories to depictions in ancient rock art. One such theme is the emergence of animals from the underworld to populate the earth, depicted either by oblique or vertical placement of animals on the rock face or animals positioned as if emerging from bedrock cracks. Selection of animals depicted appears to reflect religious concepts rather than economic concerns.

**Tresset, Anne [130]** see *Balasse, Marie*

**Triadan, Daniela (University of Arizona), M. James Blackman (Archaeometry Program, Department of Anthropology, National Museum of Natural History, Smithsonian Institution), Eduardo Gamboa Carrera (Instituto Nacional de Antropología e Historia) and Ronald Bishop (Archaeometry Program, Department of Anthropology, National Museum of Natural History, Smithsonian Institution)**

[48] *Sourcing Casas Grandes Polychrome Ceramics*

Traditionally the wide distribution of the distinctive Casas Grandes Polychrome ceramics has been interpreted as evidence for the wide interaction sphere of Paquime. The role of the major center of Paquime in the political and economic system is a crucial question in defining the nature and intensity of interactions in the Casas Grandes region and the extent of intra-regional social and political organization. A large-scale, regional sourcing project on Casas Grandes Polychrome ceramics provides new information on their production and distribution, and the nature and intensity of interaction and exchange in the Casas Grandes region.

**Trigg, Heather (University of Massachusetts Boston) and Debra Gold (St. Cloud State University)**

[6] *Cultural Identity and Mestizaje in Seventeenth-Century New Mexico*

The Spanish colonists entering New Mexico in 1598 and 1601 came from diverse cultural backgrounds. Various cultural practices encouraged the incorporation of Plains and Pueblo women into colonial households. The gender ratio of colonists and their attitudes towards sexual relations with indigenous women led to mestizaje. Modeling rates of incorporating indigenous women into the Spanish community has important implications for relations between native peoples and colonists and among colonists because bloodline was an important way that colonists judged each other. Rates of indigenous women in colonial households have implications for the changing cultural practices of individuals identifying themselves as Spanish.

**Trimble, Alicia [100]** see *Filean, Erik*

**Tringham, Ruth (University of California, Berkeley)**

[8] *The Archaeology of Touch: Places of Fire in European and Anatolian Prehistory*

Building on architectural historian Galiano's book "Fire and Memory," this paper seeks to explore fire in prehistoric and historic buildings as contributing an essential element in creating tangible, experienced, remembered, living places, through our sense of touch both for archaeologists who are revealing them and for past inhabitants who felt them. The biography-unidirectional trajectory

of their life-history - of buildings is intricately tied to the biography of fire in buildings. This study adds the sense of touch - too often taken for granted - to the traditional dominance of visual experience of places in prehistory, using examples from Neolithic Southeast Europe and Anatolia.  
**Tringham, Ruth (University of California, Berkeley)** [61] *Discussant*

**Tripcevich, Nicholas (University of California, Santa Barbara) and Alex Mackay (Australian National University)**

[136] *Spatial and Temporal Variation in Stone Raw Material Provisioning Around the Chivay Obsidian* Lithics collected during survey and excavation work in the vicinity of an obsidian source in the highlands of southern Peru demonstrate variation in strategies of obsidian procurement and processing throughout prehistory. Surface concentrations of lithics documented using a mobile GIS-based recording system are characterized using morphological attributes recorded during technological analysis. The results of this research provides new information about the changing local and regional role of the Chivay obsidian source in prehistory, allowing discussion both of local land use, and the on-set and nature of raw material extraction for long-distance exchange.

**Tripkovic, Boban (University of Belgrade) and John Matsunaga (University of California, Berkeley)**

[31] *The Creation of Place during the Neolithic of Central Serbia*  
 The Middle to Late Neolithic of Central Serbia (c. 5300-4200 B.C.) is a period when significant changes occurred in the way that people lived. During this period, there is evidence for increased sedentism, the permanence of architectural features, the elaboration of material culture, and the acquisition and production of new types of prestige items. This evidence is indicative of important changes in the significance of place. Through the use of a combined practice theory and phenomenological approach, this paper explores the evidence for the creation of new kinds of places during the Middle to Late Neolithic in Central Serbia.

**Tripplett, Kirsten (University of California)**

[145] *Searching for the Elusive Cacao (Theobroma cacao) in Mesoamerica: Utilizing Archaeoethnobotanical Techniques to Identify the "Food of the Gods"*  
 Cacao is proposed as a major component of prestige-good economies and instrumental to development of Maya social structures, especially through feasting. However, direct evidence is lacking. Research objectives focus on locating and identifying direct evidence through multidisciplinary approaches: experimentally modifying modern cacao plant collection subsets under a range of conditions designed to mimic cultural and post-depositional conditions; collecting modern ethnobotanical data on cacao cultivation, production, and processing; and applying the overall results to actual archaeobotanical remains from Terminal Postclassic sites in the Sibun River Valley, Belize, and Colonial Spanish sites in the Ulua River Valley, Honduras.  
**Tripplett, Kirsten (University of California, Berkeley)** [61] *Discussant*

**Trubitt, Mary Beth (Arkansas Archeological Survey)**

[150] *Understanding the Organization of Novaculite Tool Production*  
 Arkansas novaculite, outcropping in the Ouachita Mountains of Arkansas and Oklahoma, has been an important regional lithic resource for thousands of years. Because of the stone's durability, by-products of past novaculite procurement and tool production and use activities litter the landscape in southwest Arkansas. Recent work situates novaculite quarries in the broader context of tool production and exchange systems. This paper focuses on the component of organization of tool production, and explores analytical techniques that can be used to identify spatial separation of the lithic reduction process between quarry, workshop, and habitation sites.

**Truncer, James (Stanford University)**

[80] *Harappan Cultural Elaboration and Demographics: An Evolutionary Appraisal*  
 Between 2500 and 2000 B.C., in what is now Pakistan and western India, the Harappan Civilization produced cities with sophisticated architectural and engineering achievements, technology, and trade networks. Explaining why these cities developed and why they disappeared, however, has proven difficult. An advantage of an evolutionary approach to this problem is that it provides a set of empirical expectations concerning cultural elaboration and demographic patterns in various environments. The Harappan case is analyzed to assess whether these expectations are met.

**Tsesmeli, Evangelia (Southern Methodist University)**

[91] *The El Peru-Waka' Survey at Peten, Guatemala: Settlement Patterns and Management of Archaeological Resources*

Proyecto Arqueologico El Peru-Waka' involves not only archaeological fieldwork but also surface survey and mapping of the El Peru-Waka' and Chakah sites at Peten, Guatemala. This presentation outlines the survey objectives and results during 2003-2004, and discusses the emerging settlement patterns for El Peru-Waka' and Chakah based on the analysis of the survey data and aided by a 3D model of each site. It also presents the results of a pilot study for the Waka' Integrated Database and GIS Project (WIDP), its design and development to combine artifactual and geospatial data into a powerful management and research tool.

**Tsosie, Neomie (Navajo Nation), Davina Two Bears (Navajo Nation) and Harriet Sandoval (Navajo Nation)**

[74] *The Trail from Past to Present: Contributions to Navajo Cultural Heritage, Tribal Archaeology and the Navajo Long Walk*

Cultural preservation and applied Indigenous archaeology is exemplified and practiced by Navajo archaeologists at NNAD- NAU with regards to the Navajo Long Walk Trails Study being conducted for the National Park Service. The study is a unique effort to nominate Navajo trails from the Long Walk as a National Historic Trail. Conducting ethnographic research about the project also exposes conflicts between Navajo and academic perceptions of the Long Walk, the goal of Navajo archaeologists is to present both perspectives on the meaning and value of the Long Walk.

**Tucker, David (SWCA Environmental Consultants)**

[35] *Circular Rock Features on the Barry M. Goldwater Range, Southwestern Arizona*

Extensive survey work conducted over the last decade found that stone circles and rock rings abound in the and basin-and-range province of the western Papagueria. These features have variously been interpreted as sleeping circles, brush structure foundations, fire-rings, hearths, basket supports, and geoglyphs. This paper examines the form, function, and interpretation of these features, as well as their relationship to circular petroglyph motifs found in the area.

**Tucker, Tim (Mesoamerican Research Foundation) and James Brady (California State University, Los Angeles)**

[112] *The Cave-Platform Complex as a Previously Unrecognized Central Mexican Architectural Form*

A cave survey conducted by the Mesoamerican Research Foundation in the area of Puebla, Mexico depicted in the Maps of Cuauhtinchan documented a number of natural caves that were architecturally elaborated by having earthen platforms constructed in front of or around cave entrances. Platforms are also associated with artificial caves and serve to indicate that they were designed to function like their natural counterparts. These observations are then applied to Oztoticpac, in the Valley of Mexico, to show the wider distribution of the architectural form and to correct the mistaken interpretation of the feature as a quarry.

**Tung, Burcu (University of California, Berkeley)**

[31] *1000 Years of Solitude? Considering "Place" at Catalhoyuk*

Full of meaning, memory, and experience, it is within places that we create and recreate our world through the practices of everyday life. The site of Catalhoyuk was inhabited continuously for almost 1000 years, where knowledge and social memory was passed on for generations, forming and transforming the settlement. This paper discusses the construction of place through time at Catalhoyuk. In addition, I address the following questions: 1) How is it possible to see changing concepts of place synchronically and diachronically within a settlement like Catalhoyuk?, and 2) How does our understanding of place shape the creation of archaeological knowledge?

**Turkon, Paula (Arizona State University)**

[145] *Dietary Diversity and Status in Mesoamerica*

The murky relationship between diet status is most difficult to model in regions like Mesoamerica where the dietary focus is on a few staple foods (maize, beans, and squash). On one hand, those with economic and social means can reduce the monotony of their diet by including a diverse variety of foods and flavorings. Alternatively, based on ethnographic research, a diversified diet can be explained as a response to inadequate supply of staple foods, so that non-elites have a more diverse diet than elites: Paleoethnobotani data from diverse parts of Mesoamerica are used to examine these contradictory models.

**Turkon, Paula [50]** *see Elliott, Michelle*

**Turnbow, Chris (Laboratory of Anthropology)**

[94] *Understanding Classic Mimbres in the Gila Forks Region of New Mexico: the Little Devil and Diablo Sites*

Classic Mimbres components in New Mexico's Gila Forks region are plentiful but not well understood. Only four have been intensively excavated, including the West Fork Ruin, Diablo, and Little Devil sites during a 1966 highway project. More recent research at West Fork Ruin by Brewington and now the Laboratory of Anthropology have identified large quantities of whiteware and smudged pottery in possible relationship with Classic Mimbres ceramics. To substantiate this association, research currently focuses on two smaller, brief Classic occupations at the Little Devil and Diablo sites. The results offer insight on a probable Post-Classic habitation at West Fork Ruin.

**Turq, Alain [62]** *see Blackwell, B.A.B.*; [93] *see Sandgathe, Dennis*

**Tushingham, Shannon [95]** *see Johansen, Trine*

**Twiss, Katheryn (Stony Brook University)**

[133] *Wear Stages and Crown Heights on Caprine Teeth From Çatalhöyük*

Since 1995, zooarchaeologists at the Neolithic site of Çatalhöyük in central Anatolia have conducted detailed analyses of more than 650,000 faunal specimens. Data recorded for the caprine mandibular tooth assemblage include tooth wear stages (Payne's and Grant's systems as well as qualitative descriptions) and crown heights (methods from Klein et al. and from Ducos). This paper examines the utility of these data, evaluating the correspondence (or lack thereof) between crown height and wear stage. The focus is on the methodological and interpretive implications of correlations and disagreements between the data sets.

**Two Bears, Davina (Navajo Nation Archaeology Department, Northern Arizona University)**

[39] *'Ihoosh'aah, Learning by Doing – The Navajo Nation Archaeology Department Student Training Program*

In the Navajo way, children learn by respectfully watching and listening to their parents and grandparents, and then by doing what they observed. With the Navajo Nation Archaeology Department Student Training Program, a similar philosophy is encouraged and practiced. Students are exposed to a variety of experiences within the fields of cultural anthropology, archaeology, and ethnography, as well as in the Navajo culture. This paper will examine the unique blending of education/training in Western scientific archaeological method and Navajo culture, which allows for the creation of well-rounded Navajo and Native American CRM professionals.

**Two Bears, Davina [74]** *see Tsosie, Neomie*

**Tykot, Robert (University of South Florida), Fernanda Falabella (Universidad de Chile), Eugenio Aspillaga (Universidad de Chile), M. Teresa Planella and Lorena Sanhueza (Universidad de Chile)**

[49] *Assessing Ancient Agriculture in Central Chile: Comparing Coastal and Inland Sites, and the Importance of Maize, thru Bone Chemistry*

Maize is known to have become a staple crop in Ecuador and Peru well before Inca times, but the timing and extent of its importance in most of South America is unclear. In Central Chile, existing information from macrobotanical and faunal remains, dental wear patterns, and other archaeological data suggest dietary differences between coastal and inland areas, and over time. In this study, stable isotope analysis of statistically significant sets of human skeletal remains from several sites directly tests these hypotheses, while providing specific information on the regional fauna, on individual human diets, and on variation between males and females.

**Tykot, Robert (University of South Florida) [163]** *Discussant*; [133] *see Vargo, Barbara A.*; [156] *see Shelnut, Nicole*; [93] *see Setzer, Tedd*; [46] *see Lanehart, Rheta E.*

**Ugan, Andrew (University of Utah)**

[130] *MNI, NISP, and MLE: Problems and Prospects for Maximum Likelihood Estimates as a Counting Method in Zooarchaeological Research*

Minimum Numbers of Individuals (MNI) and Number of Identified Specimens (NISP) have long been the basic counting units of zooarchaeology. Despite well-known and well rehearsed problems with both, few alternatives have been offered and none has achieved widespread

acceptance, including maximum likelihood (ML) methods. Here I review the prospects for ML methods and discuss current efforts to apply them archaeologically. Heavy information requirements currently limit their use and resolving the problem will involve solving several behavioral and taphonomic issues currently confronting zooarchaeologists. Considering these models is likely to aid ongoing research by focusing attention on specific information needs.  
**Ugan, Andrew [51]** *see* Byers, David

**Umire, Adan [49]** *see* Rademaker, Kurt

**Underhill, Anne P. [46]** *see* Lanehart, Rheta E.

**Upton, Samuel**

[160] *The Rocas Gallery: Excavation and Conservation of a Chavin Drain*

The 2004 season saw the initiation of a multi-season project with the fundamental goal of restoring the drainage function of the Rocas Gallery, the central drain of the temple complex. Rocas represents a primary window into the construction timing and rationale of the major platforms in the later phases of temple construction. This season included an initial mapping of key features, a series of excavations at significant cultural and conservation points within the main canal, plus excavation and limited restoration of a newly discovered conjunction of multiple drains in the lower terrace.

**Urban, Patricia (Kenyon College) and Marne Ausec (Kenyon College)**

[148] *The Problematic Postclassic: In NW Honduras*

In much of NW Honduras, the Postclassic, Early and Late, is ceramicly invisible. Even in areas such as the Middle Ulua or the Middle Chamelecon, with sequences from the Middle Preclassic to Colonial times, Postclassic ceramics do not stand out. Exceptions are some of the Naco types, e.g., Nolasco Bichrome, which are quite different from earlier taxa. We will present the problems encountered in identifying the Postclassic for the 4 assemblages we have personally analyzed, discussing our applications of type-variety-mode analysis, our view of the system's strengths and weaknesses, and how it has been used in Honduras by others.

**Urban, Patricia A. [38]** *see* Ausec, Marne; [129] *see* Schlesinger-Guidelli, Thomas; *see* Schortman, Edward M.; *see* Desailly-Chanson, Yann

**Urton, Gary (Harvard University)**

[68] *Do the Inka Khipu Contain Ethnic Identity Markers?*

The principal device used for record keeping in the Inka empire was the khipu. If, as has been commonly assumed by Inka specialists, the population of the empire was multi-ethnic in its make-up, then many state khipu accounts may have been constructed with ethnic differentiation as an organizing principle, or criterion. This paper examines evidence for how khipu structural and symbolic features may have been used to record census and tribute data for different ethnic groups in the empire. Examples are drawn from recent studies of khipu archives in Chachapoyas, Puruchuco (Lima), and Ica.

**Uruñuela, Gabriela (Universidad de las Américas, Puebla) and Patricia Plunket (Universidad de las Américas, Puebla)**

[149] *Tetimpa: Strategies to Power in a Late Formative Transegalitarian Society*

Using Brian Hayden's model for the emergence of social inequality and complex societies as a general framework, we review the archaeological evidence derived from 11 years of work at the Formative village of Tetimpa in the State of Puebla, Mexico, in order to explore the nature of village organization prior to the emergence of stratified societies. We examine data supporting the presence or absence of specific aggrandizer strategies, such as specialized architecture, feasting, cults, and warfare, and how these might be expressed in the archaeological record at Tetimpa.

**Uruñuela, Gabriela [50]** *see* Plunket, Patricia

**Usher, Bethany (SUNY Potsdam)**

[3] *Anabaptist Cemetery Spatial Organization Reflects Patrilineal Household Structure and Endogamous Corporate Groups: A Model for Prehistory*

The internal distributions of individuals within a cemetery, and the spatial arrangement of cemeteries across landscapes have been hypothesized to represent levels of social organization

in prehistoric agricultural communities. Analyses of 3886 burials from six Anabaptist cemeteries in central Pennsylvania support these hypotheses. Individual burial locations within the cemeteries reflect the flexible but primarily patrilocal household structure. Each cemetery is used exclusively by endogamous Amish and Mennonite corporate groups or "churches," and after significant schisms within the churches, new cemeteries are established. This result supports analyzing spatial data from prehistoric cemeteries for information about social structure.

**Vail, Gabrielle (New College of Florida) and Christine Hernandez (Tulane University)**

[72] *Ritualized Human Sacrifice in Late Postclassic Maya Iconography and Texts*

Human sacrifice is a common theme in Maya codices and murals from the Late Postclassic period. Several forms of sacrifice are represented, including decapitation and heart extraction. Bound victims prior to sacrifice and mummy bundles of sacrificed individuals are also depicted. We examine this imagery within its calendrical and ritual context. Much of it can be related to period-ending ceremonies in the Maya calendar. Sacrifices of this nature form part of the contract that bound humans and deities-the offering of blood in return for the essentials of life (maize and rain), as the Santa Rita murals demonstrate especially clearly.

**Valdez, Fred [152]** *see Thompson, Lauri*

**Valdez Jr., Fred [159]** *see Sullivan, Lauren*

**Valk, Diana (Georgia State University)**

[69] *Changing Access to Social Roles among Ancestral Puebloan Women*

Ethnographic evidence from Puebloan communities supports the idea that with advanced age comes increased respect and access to roles within the community. This increased access to roles can at times result in a breakdown of gender divisions of labor within older age groups in the community. Whether this idea applies to Ancestral Puebloan groups remains ambiguous. Using mortuary data from Pueblo II, III, and IV, an investigation is made into how access to social roles changed for Ancestral Puebloan females as they aged.

**Valle, Judith [91]** *see Mongelluzzo, Ryan*

**Van Alfen, David [94]** *see Simon, Arleyn*

**van der Elst, Judith [60]** *see Richards, Heather*

**van der Merwe, Nikolaas J. (University of Cape Town) and Marion Bamford (University of the Witwatersrand)**

[77] *What Could Early Hominins Eat in a Wetland?*

Stable carbon isotope ratios in the tooth enamel of several early hominin specimens from South Africa and Tanzania indicate that they had C4-based dietary components well in excess of what they could have ingested in the form of grass-eating mammals and insects. All or part of these hominin diets had to consist of C4 plants. We have investigated the availability of plant foods that are still eaten raw by people of the Okavango Delta, Botswana and have assessed their palatability and nutritional quality. Most are C3 plants, but *Cyperus papyrus*, a C4 sedge, is an acceptable plant food and grows in dense stands in this wetland.

**Van Dyke, Ruth (Colorado College)**

[154] *Chaco and Back Again: Gwinn Vivian's Life in Archaeology*

From his formative years in Chaco Canyon, through his tenure at the Arizona State Museum, to his seminal contributions to Chacoan scholarship, Gwinn Vivian's impressive career has had far-reaching impacts on Southwest archaeology, as demonstrated by the wide range of participants in this session. Gwinn influenced young scholars who went on to define and shape the nature of public archaeology in the Southwest, and he has led Chacoan scholarship to new insights into water, ethnic diversity, small sites, roads, and outliers. I offer here a brief orientation to the life and times of Gwinn Vivian - mentor, colleague, and friend.

**Van Keuren, Scott (Natural History Museum of Los Angeles County)**

[104] *Order in a Time of Chaos: Cultural Boundaries in Northern Arizona Following the Eruption of Sunset Crater*

The eruption of Sunset Crater began a period of population mobility and reorganization in north-central Arizona. Here, as in other parts of the Southwest, archaeologists rely on ceramic design and form to ascribe cultural identity. The distribution and frequency of "index wares" are said to distinguish Sinagua, Cohonina, and Ancestral Pueblo groups in the region, sometimes within



specific sites. Using new data from the Arizona Department of Transportation's U.S. 89 project, I reexamine community structure and boundary maintenance in the Flagstaff area during the 11th and 12th centuries A.D., and then critically assess the index ware concept in southwestern archaeology.

**Van Keuren, Scott [98]** *see Munson, Jessica*

**Van West, Carla R. (Statistical Research, Inc.)**

[154] *Hot News and Cool Facts: Correlating Climate and Cultural Developments in the San Juan Basin*

Throughout his career, Gwinn Vivian has emphasized the linkages among climate, environment, subsistence technologies, social organization, and settlement in Chaco Canyon. Using a similar approach, I explore the linkages among climate, subsistence technologies, and settlement in and around Chaco with a newly developed climatic reconstruction for northwestern New Mexico. Unlike earlier dendroclimatic reconstructions that emphasize precipitation, this 2,129-year reconstruction pairs a record that models local moisture trends with an independent record that models regional temperature during the growing season. Fresh insights are gained when significant warm-wet and cool-dry intervals are isolated from the more common warm-dry and cool-wet spells.

**Van West, Carla R. [139]** *see Huber, Edgar K.*

**VanDerwarker, Amber (Muhlenberg College)**

[145] *Socio-economic Variability in Late/Terminal Formative Olmec Foodways: A View from Tres Zapotes*

Food represents an important axis for defining economic organization, gender, tradition, and ritual; and thus, it represents a powerful line of evidence for understanding relations of social inequality. With this in mind, I consider the archaeobotanical remains from Tres Zapotes, a Late/Terminal Formative Olmec political center. Specifically, I examine the distribution of plant food remains across several mound groups to assess social and economic variability among different segments of the populace. Because maize is the most abundant and ubiquitous plant represented in the Tres Zapotes assemblage, I focus primarily on distinguishing spatial patterns in its production, processing, and consumption.

**VanPool, Christine (University of Missouri) and Lisa Huckell (University of New Mexico)**

[67] *Signs of Passage: Evidence of Shamanic Activity in the American Southwest and Northern Mexico*

Although an extensive historic record of shamanic practice exists in the greater Southwest, the archaeological expression of the phenomenon is limited. We use data from archaeology, paleoethnobotany, rock art, ceramics, and the ethnographic record to address the material correlates of shamanism, temporal depth, types of shamans, plant hallucinogens exploited, and the social roles played by shamans. We suggest that shamanism was complex and multi-faceted, operating in a variety of social niches. While other lines of evidence expand our understanding of shamanism, it appears that iconographic information remains the primary source for insights into prehistoric shamanic trance, ritual, and beliefs.

**VanValkenburgh, Nathaniel (Institute for the Study of the Americas, London, UK)**

[160] *Twenty Strombus Trumpets from Chavín de Huántar: Early Northern Peruvian Interregionalism and the Development of Style, Value, and Ritual Practice*

Artistic and other crafted modifications visible on twenty *Strombus galeatus* trumpets found in the Caracolas Gallery at Chavín de Huántar in 2001 speak of affiliations between Chavín and distant settlements in the northern Peruvian Andes during the late Initial Period and Early Horizon. Identifying the regions in which the trumpets were modified, the nature of their modification, and the representation of *Strombus* in contemporary images from the region provides a picture not only of the trumpets' circulation between certain northern Peruvian locales but also interesting evidence about the coming together stylistic motifs, categories of material value and ritual practices in the region.

**Vargas, Benjamin [162]** *see Ciolek-Torrello, Richard*

**Vargo, Barbara A. (AMEC Earth & Environmental), Robert Tykot (University of South Florida), Michael Glascock (University of Missouri) and R. Jeff Speakman (University of Missouri)**

[133] *Source Analysis of Obsidian Artifacts from Pantelleria (Italy) and Tunisia*

Throughout the Neolithic period, obsidian served as an important commodity in the central Mediterranean as the intensification of trade relationships expanded. We report the current results of an extensive physical and visual analysis and chemical characterization of obsidian artifacts from sites on the Italian island of Pantelleria, and the Tunisian sites of Zembra and Hergla. In particular, the results of geochemical analysis of over 100 artifacts are used to trace obsidian from multiple sites to specific geologic subsources, not only documenting long-distance routes of exchange but suggesting certain kinds of socioeconomic interactions between Pantelleria, Sicily, Malta, and North Africa.

**Vargo, Barbara A. [101]** see Kelly, Katherine M.

**Varien, Mark (Crow Canyon Archaeological Center) and James Potter (SWCA)**

[97] *Structure, Agency, and Identity Construction in the Context of Community Life*

The rules and resources that structure social activity are reproduced and transformed through the interaction among individuals in the context of community life. This is also a social context where individuals, as strategic actors, exhibit their agency. Further, the interplay of structure and agency in the context of intra and inter community social action is a dynamic whereby the social identities of individuals are constructed. This presentation introduces the papers in this symposium by examining the concepts of community, structure, agency, and identity and discussing how they are related.

**Varney, R. A. (Paleo Research Institute)**

[53] *Late Pleistocene and Holocene Modeled Climatic Averages and Anomalies on the North American Continent*

Archaeoclimate models have provided two hundred year average climate estimates for many hundreds of localities on the North American continent. But, until now, a continent-wide synthesis of the modeled climatic averages and anomalies from present conditions has not been conducted. This study outlines the modeled vagrancies of the continental climate over the past 14,000 radiocarbon years. Animations of the modeled precipitation and temperatures and of the precipitation and temperature anomalies from present, as well as the location of the polar ice cap are available for viewing.

**Vaughn, Kevin (Pacific Lutheran University)**

[18] *Craft Specialization, Households, and the Development of Power in Nasca, Peru*

This paper focuses on the development of sociopolitical power in Nasca society during the 1st millennium AD. Recent archaeological investigations at domestic sites, and compositional analyses of ceramics, clays, and pigments will be summarized. Based on this ongoing research, it is proposed that sociopolitical power in Nasca was ideologically grounded and obtained through ritual feasting. This ideological power base was reinforced in large group ceremonies and the distribution of polychrome ceramics bearing the principal motifs of Nasca ideology. The Nasca case study offers a contrast to developments along the Andean coast for the last 4000 years.

**Vawser, Anne (National Park Service) [37]** *Discussant*; [118] see Hartley, Ralph

**Vellanoweth, René (Department of Anthropology, Humboldt State University) and Amanda Cannon (Humboldt State University)**

[19] *How Did the Native People of San Nicolas Island Fit in Local and Regional Interaction Spheres?*

San Nicolas Island, outermost and centrally located among the California Channel Islands, has often been characterized as marginal and peripheral to the broader sphere of interaction within Southern California. In this paper, we evaluate this position by examining an array of artifact assemblages and their spatial and temporal distributions over a 5,000-year period. Our study suggests that the people of San Nicolas Island were integral to maintaining islander-mainlander connections and flourished as artisans and traders, leaving behind a rich cultural heritage that is neither marginal nor peripheral.

**Vellanoweth, René [119]** see Rick, Torben

**Veltre, Douglas [106]** see Yesner, David

**Venter, Marcie (University of Kentucky)**[13] *Late Postclassic Boundary Dynamics: Toztlan, Veracruz*

Toztlan was situated at one of the most dynamic crossroads of Mesoamerica during the Late Postclassic period where affluent cultures of the Gulf Lowlands, Isthmus of Tehuantepec and Triple Alliance intersected geographically, culturally, and politically. This position placed Toztlan at an ideal location for the study of boundary dynamics during one of the most active periods of cross-regional movements and culture contacts in prehispanic Mesoamerica. I present the findings of the first field season of archaeological study at Totogal, the site believed to have been the Postclassic cabecera of Toztlan listed on the Tochtepec tribute page of the Codex Mendoza.

**Ventura, Karen [128]** *see Huaman, Luis*

**Verdaasdonk, Jolien S. [116]** *see Davis-Salazar, Karla L.*

**Verity, David [157]** *see Nance, C. Roger*

**Vermeersch, Pierre M. (Katholieke Universiteit Leuven)**[44] *Egypt from 50 to 25 ka BP: A Scarcely Inhabited Region?*

During the OIS 5 - OIS 4, Egypt was intensely populated. Data concerning 50 to 25 ka BP is restricted because a very arid climate. No known human presence in the Lower Egyptian. The long blades Taramsan industry is dated 50-45 ka BP. A burial of an anatomic modern Homo sapiens child is probably of the same age. Around 35 ka a new extraction technology with southerly influences was introduced. The Shuwikhatian sites, around 25 ka, bear some resemblance with Mediterranean assemblages. Egypt, in this period, seems to be looking more to the South than to the Mediterranean.

**Vialou, Denis [30]** *see Vilhena-Vialou, Águeda*

**Vierra, Bradley (Los Alamos National Lab.) and Margaret Jodry (Smithsonian Inst.)**[151] *Late Paleoindian and Early Archaic Foragers of the Northern Rio Grande*

Very little research has been conducted on Late Paleoindian and Early Archaic use of the Northern Rio Grande region of New Mexico and Colorado. Previous discussions have questioned the continuity between these periods, while others argue that the evidence would support the contention that the shift to more generalized foragers began during the Late Paleoindian and not the Early Archaic. Given the lack of subsistence data for these time periods, this paper will provide a preliminary evaluation of possible transhumance patterns through lithic material, technology and use studies of projectile points found throughout the Northern Rio Grande region.

**Vilhena-Vialou, Águeda (Museum National d'Histoire Naturelle) and Denia Vialou**[30] *Santa Elina: A Pleistocene Rockshelter in Central Brazil*

Santa Elina (Mato Grosso) is a large rock art shelter. Excavated until 4 meters deep, displays an important chronostratigraphy of human occupation. It has three stratigraphic units. Unit I, with a sequence from 6000 to 2000 yBP. Unit II including early Holocene and late Pleistocene remains, and Unit III, which belongs to the Pleistocene. Santa Elina also shows the contemporaneity of lithic artifacts and megafauna (Glossotherium) in two different strata, dated from 10,000 and 25,000 yBP respectively, thus pointing to important issues as regards the early peopling of South America.

**Villa, Paola (University of Colorado Museum) [21]** *Discussant*

**Vivian, Gwinn and Pat Vivian**[15] *Frank Hibben and Pottery Mound: Site Research and Interpretation*

Pottery Mound, an early Pueblo IV (AD 1350-1450) structure in west central New Mexico, though somewhat obscure archaeologically, is best known for its numerous kiva murals. Frank Hibben conducted archaeological field schools and other work at the site at various times between 1954 and 1986. Based on mural content and a postulated earthen pyramid under the pueblo, Hibben claimed strong Mesoamerican influence at the site. This research is summarized and Hibben's changing views on external influences at the site are evaluated.

**Vivian, Pat [15]** *see Vivian, Gwinn*

**Vivian, R. Gwinn [154]** *Discussant*

**Voelker, Judy (Northern Kentucky University) and Vincent Pigott (University College London)**

[144] *Patterns in the Organization of Production at Early Copper Production Sites in Central Thailand*

Excavations by the Thailand Archaeometallurgy Project at a cluster of prehistoric sites in the ore-rich Khao Wong Prachan Valley in central Thailand have revealed evidence for a major, regional copper production center. Occupation at these sites: Non Mak La, Non Pa Wai, and Nil Kham Haeng dates from the late third millennium BC to the mid-first millennium AD. These sites are multi-component sites that have well provenienced assemblages associated with both habitation activities and large scale pyrotechnic production. This paper discusses the dating of these sites as well as patterns in the organization of production in the valley during prehistory.

**Vogel, Melissa [86]** *see Mathieu, James*

**Vogel, Melissa A. (UCLA)**

[18] *A New Perspective on an Old Issue: the Secularization of the Andean State*

Decades ago, researchers speculated about the possible secularization of the Andean state in the later periods of Peruvian prehistory. This issue has recently resurfaced due to new investigations into the Casma polity. The Casma polity appears to have occupied nearly 300km of the Peruvian north coast during the Middle Horizon (ca. AD600-1000), a time of cultural transition and political instability. This period is important for understanding the development of the most centralized states in the prehispanic Andes. Preliminary investigations at the Casma capital, the site of El Purgatorio, provide new insights into the secularization thesis and Andean state formation processes.

**Volman, Thomas [77]** *see Avery, Graham*

**Vonarx, A. J. (University of Arizona) [155]** *Discussant*; [91] *see Machovec-Smith, Kimberly*  
**Vonarx, Amy Jo [69]** *see Adams, E. Charles*

**Voorhies, Barbara [119]** *see Kennett, Douglas*

**Voorhies, Barbara (University of California, Santa Barbara), Douglas Kennett (University of Oregon, Eugene), Dolores Piperno (Smithsonian Institution), Thomas A. Wake (Cotsen Institute of Archaeology, UCLA) and José Iriarte**

[149] *Formative Period Lifeways on the Central Coast of Guerrero, Mexico: Fresh Evidence from Puerto Marqués and La Zanja*

Recent research at two sites in contrastive environmental settings near Acapulco provide a glimpse of the lifeways of coastal inhabitants throughout the Formative Period. Our studies at the bayside site of Puerto Marqués and the lagoonside site of La Zanja focus on palaeoenvironmental reconstructions, patterns of subsistence, settlement systems and economic links to distant peoples. We propose that a trend toward increased sedentism during the Formative was fostered by the potent combination of aquatic resources and newly introduced cultigens in the subsistence system of these people.

**Voss, Barbara L. (Stanford University)**

[114] *Reconstituting the 'Colonial' in Culture Contact: The Archaeology of Military Architecture during the Bourbon Reforms in Northwest New Spain*

The culture contact framework emphasizes that culture change is inherently bi-directional, transforming the cultures and lifeways of both colonized and colonizer. Yet too often the 'colonial' population is presumptively framed as homogeneous and static in its cultural practices. Through a study of frontier military architecture, this paper argues that the 'colonial' must be reconstituted. The ethnic, racial, gendered, and cultural diversity of the colonial population challenges the neat dichotomy between colonizer and colonized. The tensions within colonial culture - in this case, between military regulations and vernacular practices - are traced as part of the web of relationships that shape colonial/indigenous encounters.

**Vranich, Alexei (University of Pennsylvania)**

[87] *Overview of the 2004 Season, Tiwanaku, Bolivia*

This introductory presentation briefly reviews models of Andean urbanism as they relate to Tiwanaku and introduces the subsequent topics to be covered by the members of the 2004 field season. The results of this field season suggest a more complex and varied use of both ritual and

domestic space within the monumental core than originally proposed by this research program, proposing that elite strategy at Tiwanaku revolved around creating spectacular and awe inspiring scenes for large scale inclusive events for the purpose of co-opting local populations and expanding the influence of the polity.

**Vrydaghs, Luc [164]** *see* Ball, Terry

**Waddington, Clive (Archaeological Research Services)**

[100] *Mesolithic Settlement Around the North Sea Basin: A Case Study From Howick, Britain*  
Recent discoveries of substantial Mesolithic huts in coastal areas of North-East Britain has revealed evidence for long-term occupation spanning several generations. Most of these sites date to the beginning of the 8th millennium BC (Cal.) suggesting they are a temporally distinct phenomenon. In searching to explain this pattern attention is drawn to the rapid sea-level rise at this time. Displacement of populations inhabiting the North Sea Plain to surrounding areas may have driven the need for more 'permanent' structures as surrounding groups strove to maintain territorial control and access to resources. This paper explores this hypothesis with reference to recently excavated sites.

**Wade, Mariah (University of Texas, Austin)**

[47] *The Functional Greek Kitchen: From the Frying Pan to the Fire*  
The Greek kitchen was designed to be functional, multi-purpose and portable, from its stove components to its pots and pans. The cooking ware materials from the southern Italian site of Pantanello, a Greek-indigenous rural sanctuary, as well as from other sites in the Metapontino region, exemplify the versatility of forms and temper choices made by the potters and emphasize the conservative nature of dietary and cooking practices. The distinction of vessels meant to be used over the fire, versus those used directly on the fire source provides information about formal and thermal choices, as well as gender and social practices.

**Wadley, Lyn [21]** *see* Lombard, Marlize

**Wagner, Ursel (TU-München), Werner Häusler (TU-München) and Izumi Shimada (Southern Illinois University)**

[49] *Moessbauer and XRD-Study of Moulds, Kilns and Other Remains from a Sicán Workshop in Peru*

Sicán pottery was investigated in detail over the last years, including replica pottery from field firing experiments. In continuation of this work, we now report on studies of technical ceramics using Moessbauer spectroscopy and XRD. Ceramic moulds, pieces of pottery kilns and furnace linings were investigated together with different samples from large urns set upside down into the ground and used for metalworking. Additionally a detailed study of test materials from field firings is presented. By comparing the temperatures recorded by thermocouples embedded in balls of local clay with Moessbauer spectra of these balls, the temperature behavior during firing in oxidizing or reducing environment yields a detailed history of the firing procedures.

**Wake, Thomas (UCLA), Jeannette Bond (CSUN) and Carlos Fitzgerald (INAC-Panama)**

[116] *The Archaeology of Isla Colon, Bocas del Toro, Panama*  
Isla Colón is located in the Bocas del Toro Archipelago on the Caribbean coast of northwest Panama. This region is poorly known, having seen one rigorous project and two testing investigations over the past 30 years. Test excavations at Sitio Drago confirm contemporaneous occupation covering over 17 hectares. A brief survey in the interior of the island included the discovery of a site dominated by Bugaba style ceramics, extending the prehistory of the island back another 500 years. These findings are compared to those from Cerro Brujo, and other western Panamanian and southern Costa Rican sites.

**Wake, Thomas A. [119]** *see* Kennett, Douglas; [149] *see* Voorhies, Barbara

**Walde, Dale (University of Calgary)**

[76] *Feeding Pehonan: A Logistical Response to a Food Collection Challenge*  
Precontact occupants of the boreal forest living in small bands faced the challenge of maintaining viable populations in an environment characterized by abundant but scattered food resources. Small groups used a collecting approach to resource gathering but the exigencies of reproduction required larger social formations. The issue of provisioning large population aggregations at the southern edge of the boreal forest in central Saskatchewan is examined here. Materials from

Pehonon Complex sites suggest that people changed their approach to food procurement during the spring and adopted a logistical strategy aimed at maximizing productivity to create surpluses during the relatively brief aggregations.

**Walker, Debra (Florida International University)**

[159] *Tzakol Pots and Politics: Delimiting the Cultural Parameters of Early Classic Polychromes*  
If material objects mirror the social order as most anthropologists allege, then one might say that the Early Classic Maya molded a new social order in polychrome paint. Ceramics from the prior Chicanel Preclassic epoch saw mainly monochrome surface treatment, yet Early Classic artists chose clay vessels to portray a complex cosmos. Smith's influential analysis of Uaxactun pottery benefited from the shift, and undercurrents of that work shape our present use of type-variety analysis. Questions regarding the meaning of polychrome pottery in the social milieu of Tzakol Phase, however, remain largely unexamined.

**Walker, James (Brigham Young University) [16] Discussant**

**Walker, Patricia [141] see Dello-Russo, Robert**

**Walker, Steven (Lone Mountain Archaeological Services, Inc.) [16] Discussant**

**Wallace, Henry (Desert Archaeology, Inc.) and Michael Lindeman (Desert Archaeology, Inc.)**

[139] *Mechanisms of Social, Ritual, and Political Change in the Hohokam Core: The First Two Culture*  
A drastic transformation of the Gila and Salt River Valleys occurred in the fifth and sixth centuries A.D. involving population aggregation, possible immigration, construction of massive canal systems and the establishment of founding villages that were to be maintained for many centuries thereafter. This paper will examine new evidence for the sequence of events involved, and consider the environmental, social, and ritual developments that led to the origin and dispersal of the Hohokam Cult in the ninth century A.D.

**Wallaert, Helene (University of Arizona)**

[45] *Tradition in the Making: Contemporary Pottery Making and Apprenticeship Processes within New Mexico Pueblos: A Case Study*

Comprehension of phenomena related to the elaboration of cultural boundaries remains a central issue for many research disciplines. Anthropologists have explored these topics recently through studies of cultural transmission, trying to understand how people relate to their community, and manifest their identity. Southwest American pottery has been the focus of major studies but the question of contemporary craft learning has not. Much more investigation is needed to understand how potters relate to their community, how they deal with the recognition of their techno-cultural background. This paper will explore pottery teaching and learning processes within a group of New Mexico Pueblos.

**Wallis, Neill J. (University of Florida)**

[8] *Networks of Memory and Meaning: Creating a Nexus of Social Identity in Woodland Mounds in Northeastern Florida*

Mounds in the Southeastern United States have long been relegated to explanations of evolutionary trajectories toward increasing "complexity," while structural transformations facilitated through the construction and use of mounds remain largely ignored. Instead, I argue that major changes in the structure and organization of monuments at regional scales, such as the architectural transition from Late Archaic to Woodland monuments, intersected localized representations that facilitated construction of locally important memories and meanings. Through the spatial relationships between monuments, movement of people between places, and ritual appropriation of history and identity at mound ceremonies, memory and meaning was continually created and negotiated.

**Wallis, Neill J. (University of Florida), Ann S. Cordell (Florida Museum of Natural History) and Lee A. Newsom (Pennsylvania State University)**

[95] *Petrographic Analysis of Charcoal-Tempered Pottery from Northeastern Florida*

Charcoal-tempered pottery occurs within the lower St. Johns River area during the Early Swift Creek Phase, A.D. 300 to A.D. 600. Previous investigations of this ware have been fleeting and superficial. Sherds from the Mayport Mound in Duval County and the McArthur Estates site in Nassau County, Florida, were examined to ascertain variability in temper size, shape, and abundance. Three samples from the Mayport mound were thin-sectioned to determine the

structure and character of the temper particles. Species identification is attempted and the nature of the temper - charred wood versus uncharred wood - is discussed.

**Wandsnider, LuAnn (University of Nebraska, Lincoln) [84] Discussant**

**Wang, Rui [14] see Ambrose, Stanley**

**Ward, Christine (University of Colorado)**

[52] *Explorations of the Comb Wash Great House Community*

Residential communities near great houses are one of the least investigated aspects of the great house pattern. From 2002-2004, the University of Colorado explored the community around the post-Chaco era Comb Wash Great House. We located and mapped a number of roughly contemporaneous unit pueblos nearby the great house. Several were tested, and one, a small unit pueblo just south of the great house precinct, was more thoroughly excavated. I present the results of these investigations and compare them with those from other great house communities that have been explored elsewhere in the Chaco and post-Chaco worlds.

**Ward, Christine [52] see Mitchell, Mark**

**Warden, Robert [142] see Dickson, D. Bruce**

**Ware, Gene [50] see Danien, Elin**

**Warren, Claude N. (University of Nevada, Las Vegas), Joan S. Schneider (University of California, Riverside and California State Parks) and G. Timothy Gross (Affinis)**

[35] *Circles and the Cultural Landscape of the Lower Borrego Valley, Colorado Desert, California*

A variety of circular features are prominent on the Colorado Desert landscape, especially on old and stable land surfaces. Past interpretations were based on a model postulated in the pioneering work of Malcolm J. Rogers. Recent work in the Lower Borrego Valley involved a definitive study of these features, their artifact, plant, and geomorphological associations, and their contexts in order to more fully understand what the features represent. Collections analyses, GIS data, and geological considerations are combined to develop hypotheses about the formation, distribution, age, and possible function(s) and meanings of these enigmatic features.

**Waters, Jennifer A. (Desert Archaeology, Inc.), Michael W. Diehl (Desert Archaeology, Inc.) and J. Homer Thiel (Desert Archaeology, Inc.)**

[161] *Diet at the Tucson Presidio*

Recent excavations within the Tucson Presidio, a Spanish fortress established in 1775, have uncovered trash-filled pits dating from the 1810s to 1830s. Food remains indicate a heavy reliance on domesticated animals and plants, such as beef and wheat, supplemented by small amounts of wild resources. Ceramic vessels provide clues about food preparation. Altogether these lines of evidence suggest a strong adherence to European and Mexican food customs, despite the relative isolation of the community along New Spain's northern frontier.

**Watkins, Scott [85] see Jorde, Lynn**

**Watson, Jim (University of Nevada, Las Vegas)**

[69] *The Recipe for Constructing a Human Burial Chronology: Erosion, GPR, Fluoride and Radiocarbon at La Playa, Sonora*

Work at La Playa, Sonora over the last ten years has produced the largest, most comprehensive sample of human burials (n=246) in the North American Desert West that date to the Early Agricultural period (1600 B.C. - A.D. 200). A burial chronology for the entire duration of this period has been constructed by using a combination of Ground Penetrating Radar to locate and subsequently excavate in situ burials, running a sequence of relative fluoride dates on the entire sample and anchoring these with several absolute radiocarbon dates. This burial chronology provides a platform in which to test temporally sensitive questions within this important and dynamic burial population.

**Watson, Patty Jo (Washington University) [126] Discussant**

**Watson, Richard [60] see Richards, Heather**

**Watt, Kathy (Simon Fraser University) and Dongya Yang (Simon Fraser University)**

[60] *Sample Selection for Ancient DNA Analysis*

Ancient DNA analysis still faces technical challenges; among them, contamination is the most

troublesome one. Contaminants can arise from a variety of sources including the analyst, other samples, or modern specimens. Contamination can be significantly reduced if proper procedures are implemented. Contamination controls should begin in the field where archaeologists and anthropologists collecting samples can take precautions to limit handling and reduce contamination. This paper attempts to provide suggestions for the collection and preparation of bone samples for ancient DNA analysis from the field or housed collections.

**Waxenbaum, Erin (University of Florida)**

[83] *An Analysis of a "Royal" Cemetery: How Can Status be Assessed?*

Analysis of human material culture in a burial context can reveal information about the lives and processes of past peoples. Through the examination of material wealth, information relevant to culture, religious intention and social organization can be discerned. A comparative analysis of the material remains of six tombs was conducted based on prestige items, type and quality to assess whether demarcations of status could be identified. The range of material remains and consideration given to the burials at the Royal Cemetery of Ur is one example that can provide a clearer picture of life and practice in ancient Mesopotamia.

**Weaver, Cristie L. [33]** *see* Manzano, Bruce L.

**Webb, Elizabeth (University of Western Ontario), Henry Schwarcz (McMaster University), Christopher Jensen (Brigham Young University), Richard Terry (Brigham Young University) and Matthew Moriarty (Tulane University)**

[73] *Using Stable Carbon Isotopes of Soil Organic Matter to Identify Ancient Maya Maize Agriculture at Motul de San José, Guatemala*

The residues of ancient maize cultivation are preserved in the oldest humic fraction of soil organic matter and have a distinct carbon-isotope signature relative to the C3 forest native to the Maya lowlands. Identifying the presence of modern versus ancient maize residues via the carbon-isotope analysis of the soil humic matter can delineate the lateral extent of ancient maize cultivation. Along the study transect, ancient maize residues were preserved in the soils within the ancient Maya urban centre of Motul de San José and the peripheral settlement of Chäkokot but absent on the sparsely settled land between these sites.

**Webber, Charles [129]** *see* McFarlane, William; *see* Ellison, Leigh Anne

**Weber, Steve (Washington State University Vancouver), Heather Lehmann (Washington State University Vancouver) and Tim Barela (Washington State University Vancouver)**

[14] *Harappan Agriculture: Dual Cropping as a Deficient Explanation*

The cultural diversity seen in the Indus civilization may be better understood by reexamining the range and scope of their agricultural practices. The focus on a dual cropping strategy has resulted in the assumption that a more uniform system existed than recent research suggests. This paper will attempt to demonstrate that by understanding and focusing on the agricultural diversity of the times, a more comprehensive model of the Harappans is possible.

**Weber, Steve [60]** *see* Barela, Tim

**Webster, Gary [93]** *see* Setzer, Teddi

**Webster, Laurie (University of Arizona)**

[15] *Ritual Costuming at Pottery Mound: The Pottery Mound Textiles in Regional Perspective*

Between AD 1200 and 1450, new decorative techniques and garment styles, many originating in Mesoamerica and linked to new forms of ritual practice, were incorporated into the traditions of the Northern Southwest. Although actual textile remains from this period are limited, the widespread nature of these ceremonial clothing traditions may be inferred from the murals at Pottery Mound, Kuaua, Awatovi, and Kawaika. This paper discusses the Pottery Mound textiles vis-a-vis the Kuaua and Jeddito murals and interprets them within the broader regional context of social interaction, exchange, and textile change during Pueblo IV.

**Webster, Laurie [111]** *see* Raney, Anne

**Wedding, Jeffrey (HRC/UNLV), Lynda Blair (HRC/UNLV), Susan Slaughter (HRC/UNLV) and Diane Winslow (HRC/UNLV)**

[105] *A Mixed Bag: Prehistoric Research Results in Nevada and California Along the Kern River 2003 Expansion Pipeline Route*

Most sites mitigated along the Kern River 2003 Expansion Project in Nevada and California were



being re-investigated, some subject to 60+ years of archaeology. As a result, specific features and questions were targeted in the treatment plans to build upon existing data and reduce repetitive and redundant results. New chronometric data from luminescence and radiocarbon dating, and results of obsidian studies will be discussed. Quite unexpectedly, unreported data was rescued from an orphaned existing collection in California that provided information regarding prehistoric turquoise mining in the Mojave Desert. Findings about the toolkits of the aboriginal miners will be highlighted.

**Weedman, Kathryn (University of South Florida) and John Arthur (University of South Florida)**

[85] *An Ethnoarchaeological Study of the Use of Space and the Material Culture of Caste Groups in Southwestern Ethiopia*

The question of whether caste societies exist outside a southern Asia context in Africa has received considerable attention in the past. The Gamo people of southwestern Ethiopia are an agrarian society that has a socioeconomic organization based on a rigid caste system. Our ethnoarchaeological study of the Gamo correlates material culture with socioeconomic relationships outlining characteristics of a caste society. The association between households and social stratification in a contemporary setting has the potential to provide a model that addresses social differences in prehistoric societies.

**Weets, Jaimin (SUNY Potsdam)**

[93] *Regional Patterns of Dental Variation in Ancient Ireland*

Migration and continuity are central themes in Irish archaeology. While cultural materials have been heavily debated as evidence of prehistoric migration events, little bioarchaeological research has been conducted to provide more information. Thirty-four dental morphological variables were recorded from 681 individuals in time periods from c. 4000 B.C. - AD 1000. Statistically significant differences were exhibited between regional populations with patterning very similar to present-day Irish populations. But, little consistency exists from variable to variable in relationships between regions. The overall pattern suggests continuity of populations through time, with possible small-scale migrations events on Ireland's east-central coast.

**Weigand, Phil C. [163] see Glascock, Michael D.**

**Weintraub, Neil (Kaibab National Forest) and Daniel Sorrell (Kaibab National Forest)**

[141] *A GIS Model for Late Pueblo II Cohonina Multi-Directional Abandonment of the Coconino Plateau*

Kaibab National Forest archaeologists analyzed well-dated ceramic sites with their Geographic Information System to illustrate Cohonina population shifts between A.D. 700 and A.D. 1150 on the Coconino Plateau. The data support a multi-directional abandonment of the Cohonina heartland during Late Pueblo II -- to the north, east and southwest. The paper concludes by suggesting that by early Pueblo III, the Cohonina had integrated with neighboring Grand Canyon Kayenta populations, the Sinagua east of the San Francisco Peaks, and the Southern Sinagua and Prescott Cultures in Sycamore Basin.

**Weismantel, Mary (Northwestern University)**

[99] *Eating the Living/Feeding the Dead: Themes of Incorporation in Native South America*

Life and death are opposites, but Native American religion often emphasizes continuity between them. Dead bodies found by archaeologists fall into opposing categories too: the revered ancestor and the dishonored enemy or sacrificial victim. But the ancestral dead can harm the living, while sacrificer and victim may enjoy a curious intimacy. This paper uses ethnographic, ethnohistoric and iconographic evidence to explore themes of incorporation that link the living, the dead, and the almost dead, which may affect the treatment of human remains, representations of the body in art, and the ritual use of body fragments.

**Weismantel, Mary (Northwestern University) [47] Discussant**

**Weiss-Krejci, Estella (University of Oporto)**

[99] *The Role of Dead Bodies in Ancient Maya Politics*

Dead bodies have played a tremendous role in ancient and modern politics. Struggles over the choice of burial places and fights over corpses have been documented from various time periods and parts of the world. Bodies of famous people, political and religious leaders and of anonymous dead have been exhumed, reburied and desecrated in order to elevate or degrade the status of their owners, to construct new affiliations between groups, rewrite history and to retrieve or

construct social memory. The paper explores the potential political role that bones, corpses and urns may have played among the ancient Maya.

**Welch, John (White Mountain Apache Tribe), Mark Altaha (White Mountain Apache Tribe), Doreen Gatewood (White Mountain Apache Tribe) and Nicholas Laluk (University of Arizona)**

[98] *Archaeology's Common Ground: Resource Protection and Tribal History as Foundations for University-Tribal Collaborations in Research, Management and Training*

The SCARP 2002-2004 Field School in Archaeology and Heritage Resource Management provides a model for the balanced integration of diverse interests in scientific research, student training, and resource management and interpretation. The White Mountain Apache Tribe contributed students, resource access, project ideas, and cultural advisors to the Field School, obtaining technical assistance, management data, student labor, and validation of culturally derived management practices and research prohibitions. Tribes can build partnerships by establishing a community-focused agenda for training, investigation, and resource needs, setting research and partnership parameters, and fostering participation by tribal leaders.

**Welch, John [39]** see Mills, Barbara; [98] see Ferguson, T. J.; [94] see Altaha, Mark

**Weller, Errin (University of Colorado)**

[32] *Trails and Trials: The Detection, Confirmation, and Interpretation of Silencio Footpaths*

Through the combination of high-resolution satellite imagery, survey, and surface excavation, a methodology has been established for the location and confirmation of footpaths of the Silencio phase (AD 600-1300.) Analysis of the imagery revealed linear anomalies that were excavated and determined to be one of the following: 1) prehistoric footpaths, 2) historic or modern cultural features, or 3) result of natural formation processes. To differentiate between these possibilities, multiple lines of evidence were utilized including topography, stratigraphic profiles, artifacts, and association with known archaeological locales. It is suggested this research can be expanded to other areas of the New World.

**Wells, E. Christian (University of South Florida)**

[47] *Soil Chemical Residues of Food Preparation: Lessons from Mesoamerican Ethnoarchaeology*

Reconstructing past food preparation activities often relies exclusively on inferences made from the presence of cooking implements. However, these materials are usually found in secondary deposits, such as middens, which limit the interpretive potential for understanding spatial patterns of cooking practices and the social relations they imply. This paper draws on ethnoarchaeological studies of soils in Mesoamerica to evaluate the results of archaeological cases for food preparation. The study concludes that, by analyzing the chemical residues of food technologies and their byproducts in anthrosols, cooking and related tasks can be studied in primary contexts even when little or no material evidence persists.

**Wells, E. Christian (University of South Florida) [69]** see Rice, Glen E.; [116] see Davis-Salazar, Karla L.; [155] Discussant; [129] Discussant

**Wells, Josh [64]** see Griffith, Cameron

**Wells, Joshua (Glenn A. Black Laboratory of Archaeology, Indiana University)**

[64] *The Best of All Worlds: Ethnogenesis and Intersocietal Relationships of the Mississippian Vincennes Phase in Indiana and Illinois*

The Vincennes phase is a Middle Mississippian manifestation, in the central Wabash drainage, that joined the Mississippian and non-Mississippian territories in Indiana and Illinois. The Vincennes phase shared a number of distinct material culture traits with neighboring Middle Mississippian, Late Woodland, and Fort Ancient related groups. New archaeological evidence and reanalyses of previous work indicate that the Vincennes people created a distinct ethnic region heavily incorporating traits of their neighbors. This paper will draw on archaeological and ethnohistoric evidence to evaluate different models for the sociocultural processes that may have facilitated intersocietal interaction and culture change in the Vincennes region.

**Wendrich, Willeke (UCLA)**

[45] *Ancient Apprenticeship and Body Knowledge*

Ancient technology was passed on through generations. The transfer of knowledge from master to apprentice was done partly by demonstrating, but mostly by having the apprentice train the

same movements over and over again, building up a physically engrained knowledge of movements. To understand the demands of ancient production the modern researcher will find that the most suitable method of acquiring knowledge is to take on the role of apprentice. This research strategy provides not only information on the techniques and the properties of the materials, but also on the learning process itself.

**Wendt, Carl (California State University, Northridge)**

[42] *Bitumen Processing and Exchange among the Olmec*

Bitumen, found in abundance in Mesoamerica's southern Gulf Coast region in natural seeps and in many archaeological contexts, is an important economic resource and exchange item that has received little consideration in Mesoamerica. An analysis of seep bitumen and archaeological bitumen from Olmec sites provides insights on processing activities, patterns of commodity exchange, and intra-regional interactions. Processing techniques are inferred from experimental, chemical, and microscopic work. Gas chromatography/mass spectrometry analysis is used to trace archaeological bitumen specimens to their sources and provides data on intra-regional movement of bitumen, shedding light on patterns of commodity exchange, intra-regional relationships, and interactions.

**Wenzel, George [140]** see Savelle, James

**Werness, Maline (University of Texas, Austin)**

[58] *The Iconography of Pabellon Molded-Carved Ceramics: An Investigation*

During the Terminal Classic period (700-900 CE) Maya potters produced a fine orange ceramic type known today as Pabellon Molded-Carved. This luxury ware experienced wide distribution, was copied, and contains complex iconography paired with varied hieroglyphic texts. Stylistically, the visual adornment indicates broad trends and shifts while iconographically, it displays repetitive imagery that can be divided into distinct scenes. These groupings seem to reflect cultural stresses; indeed, an overview of Pabellon scene groupings combined with a careful analysis of one of the categories - the Reclining Figure Scene - will augment an understanding of Terminal Classic iconography.

**Werneke, Steven (University of North Carolina, Chapel Hill)**

[66] *Remapping Authority and Community in the Reducciones of the Colca Valley, Peru*

In the 1570s, some 1.5 million Andeans were forcibly resettled from their prehispanic settlements into European-style villages known as reducciones. Although this radical resettlement program would seem to epitomize rule by administrative fiat, very little is known about what specific local criteria were used to determine where reducciones were to be located or how indigenous communities were to be divided or conjoined to populate them. This paper compares land tenure patterns derived from colonial censuses with settlement pattern data from the Colca valley to reconstruct where indigenous communities lived prior to resettlement, thereby providing a window into these local negotiations.

**Wesler, Kit W (Murray State University)**

[107] *A Failure of Academic Stewardship*

Murray State University took ownership of two archaeological sites in the early 1980s: Wickliffe Mounds (15Ba4) and Savage Cave (15Lo11). The histories of these sites offer case studies of stewardship in private and public sectors, and suggest reasons why, in this case, academic stewardship was untrustworthy: the principles of conservation archaeology shaped a management plan for Savage Cave that prevented it from being an asset to the university, while the training and public education functions and heritage value of the Wickliffe Mounds Research Center were not appreciated sufficiently by the administration to continue funding in a time of tight budgets.

**West, Dixie [119]** see Corbett, Debra

**Westfall, Deborah (Edge of the Cedars Museum) and Jonathan Till (Crow Canyon Archaeological Center)**

[52] *Use of Indoor and Outdoor Space at the Bluff Great House*

Excavations in the interior East Kiva and Northeast Kiva, and exterior features comprising Architectural Units 71A, 71B, and the south plaza area of the Bluff Great House yielded information about the construction and use of indoor and outdoor features. Architectural and artifactual data will be examined to explore the uses of these features. Comparison with similar

architectural units at other excavated great house sites should illuminate similarities or differences in the use of private and public spaces associated with the occupation of great houses during the Chaco and post-Chaco eras.

**Weymouth, John [40]** *see Lynott, Mark*

**Whalen, Michael E. [6]** *see Minnis, Paul E.*

**Whallon, Robert (University of Michigan), Robert G. Reynolds (Wayne State University) and Howard Scheer (Wayne State University)**

[89] *Agent-Based Modeling of Early Hominid Decision-Making*

A key mathematical model for early hominid and primate decision-making is the vector-voting model. This model simulates a group choosing foraging directions where individuals can communicate their desired direction and their level of determination for that direction, but not their underlying rationale. The resultant direction for the group is a weighted sum of all individuals' desired directions. This model matches the ability and behavior of societies with no symbolic (language-based) capabilities. We present results showing how the foraging success of this model is affected by environmental and social factors, including the emergence of language abilities.

**Whallon, Robert [89]** *see Reynolds, Robert*

**Wheat, Patricia (Pam) (Texas Archeological Society) and Patricia (Pat) Mercado-Allinger (Texas Historical Commission)**

[113] *Archeologists and Avocationalists as Partners in the Texas Archeological Society: Field School and Academies*

The Texas Archeological Society (TAS) was organized in 1928 and today has a record membership of over 1600. The Society has conducted field schools since 1962. In 2004 four hundred and fifty members attended the summer field school conducted at Presidio San Saba and led by Drs. Tamra Walter and Grant Hall of Texas Tech University. Training includes an orientation for newcomers, work in excavations, survey, lab and a youth program. Reports are published in the Bulletin of the Texas Archeological Society. In 2003 new training sessions were added to the programs of the Society. Sessions of the Texas Archeology Academy include Archeology 101, Ceramics: The Stories Found in Pottery, and Lithics: Reading Stone Artifacts. Each session includes PowerPoint lectures by Dr. Harry Shafer, a manual on CD and hands-on activities tailored to the topic by Pam Wheat. The Academy was designed to provide a more in depth look and how and why archeology is done. These courses present a strong anthropological theme with preservation ethics emphasized. Extensive publicity aimed at the public has brought new members into the Society. In two years over five hundred people have registered for Academy sessions held at regional locations across the state.

**Wheaton, Thomas (New South Associates) [115]** *Discussant*

**Wheeler, Derek [3]** *see Bon-Harper, Sara*

**White, Carolyn L. (CRCG, Inc.)**

[142] *Exploring Nationalism through Material Culture: Personal Adornment and Patriotism in 18th-Century Portsmouth, New Hampshire*

During the Revolutionary War and in the years following it, Americans were encouraged to use locally manufactured goods in order to reduce the colonies' reliance on imported commodities. The pressure to abstain from imports came in the form of legal strictures as well as popular movements. This paper explores the ways in which the residents of Portsmouth, New Hampshire, adhered to these restrictions through an examination of personal adornment artifacts. Portsmouth's residents complied with and took up this ideology only selectively- maintaining a link to European visual identity via an affinity for European fashions while forging a new national American identity.

**White, Christine [72]** *see Price, T. Douglas*

**White, Devin (University of Colorado)**

[32] *The Paths and Places of the Living and the Dead: Survey in the Fincas of Castrillo and Mandela*

This paper describes survey and excavation activities within two adjoining fincas (ranches), Finca de Castrillo and Finca Mandela, during the 2002 and 2003 field seasons of the Proyecto

Prehistorico Arenal in Guanacaste, Costa Rica. The goal of these activities was to locate and confirm both prehistoric footpaths and the sites they connected within the study area using a combination of remotely sensed data, pedestrian survey, and trenching. One of the highest concentrations of Arenal-phase cemeteries in the region, a handful of associated footpaths, two petroglyph panels, a potential village site, and several historic sites were recorded.

**White, Devin [52]** *see Levine, Marc*

**White, William**

[137] *Anthropomorphic Petroglyphs of the Pahranagat Region*

Unique prehistoric anthropomorphic images exist in and surrounding the Pahranagat Valley, southeastern Nevada. Produced by hunter-foragers, the graphic images have a limited spatial distribution. The landscape context in which they have been identified has both vertical and horizontal dimensions. This paper will define Pahranagat Man and its companion, the Pahranagat patterned-body anthropomorph, as well as discuss the petroglyph elements in relation to cultural identity and territorial possession.

**White, III, William (University of Idaho) and Greg Anderson (University of Idaho)**

[11] *Interpretations of Ceramic and Glass Artifacts from Hope, Idaho*

The town of Hope, Idaho contains a dynamic archaeological record from its colorful past as a fur trading post, logging, mining, and railroad activities. Hope is a boomtown and during its 19th century heyday groups of Euro Americans, American Indians, and Chinese workers lived and worked together. A rich assemblage of materials from a salvage archaeology project in 1997 and 1998 provides an opportunity to explore life in a multi-ethnic community in north Idaho.

**Whitehead, William (Ripon College)**

[87] *Micro-analysis in Monumental Areas*

One of the primary difficulties understanding the use of monumental spaces is the lack of in situ artifacts since these areas tended to be swept clean during their use-life. This research compensates for this scarcity of artifactual data through the use of micro-analysis to identify areas of food, fuel, and ritual plant uses. These remains will be compared to earlier findings in the Lake Titicaca area from the Formative period, and from previous work at the site of Tiwanaku. The importance of microsampling and integrating general excavation information in an important monumental/ritual area will be stressed.

**Whitehead, William [145]** *see Bruno, Maria*

**Whitley, Catrina (Southern Methodist University)**

[69] *Disease, Occupation, and Sexual Division of Labor at Pot Creek Pueblo: A Case Study from the Northern Rio Grande*

Identifying disease and occupational markers within a population is an important step in understanding the stresses placed upon a population. As the Southwest aggregated into agricultural communities, an increase in the frequency of infectious diseases, occupational markers indicative of heavy labor, and a general decrease in health is noted in much of the literature. This research focuses on the skeletal population from Pot Creek Pueblo (AD 1200-1350) located southwest of Taos, NM. Analysis reveals sexual division of labor and a population increase in heavy labor that is consistent with other agricultural communities residing in the Southwest during this period.

**Whitley, David S. (ICOMOS-CAR)**

[67] *The Antiquity of New World Shamanism*

Shamanism is pervasive in indigenous America, is widely thought very ancient, and is believed to be ultimately derived from "classic" Siberian /central Asian shamanism. Despite these assumptions, the chronology of New World shamanism has hardly been investigated empirically. A review demonstrates that it extends back to Paleo-Indian foragers in North America. The Siberian evidence, in contrast, suggests a first appearance of shamanism at circa 4000 YBP, among Bronze Age pastoralists. The implications of this circumstance require re-thinking certain basic cultural historical relationships between the Old and New Worlds.

**Whittaker, William (University of Iowa) and Glenn Storey (University of Iowa)**

[40] *Ground Penetrating Radar Studies at Effigy Mounds National Monument*

GPR studies at Effigy Mounds National Monument by the University of Iowa in 2004 effectively demonstrate that radar is an efficient non-invasive tool for documenting the condition of known mounds, identifying features within mounds, and differentiating natural or recent historic mounds

from prehistoric mounds. Models useful for interpreting the radar images of different mound types will be presented and described. Recent technological innovations make GPR an effective tool for exploring culturally-sensitive features which could not otherwise be investigated through traditional archaeological methods.

**Whittlesey, Stephanie M. (Statistical Research)**

[158] *Women in the Hohokam Household: The View from West Branch*

Archaeologists have modeled Hohokam households on the courtyard group, a set of functionally differentiated architectural features sharing outdoor space. Research at the West Branch site in Tucson, Arizona, has modified this approach. Precise chronometric dating revealed a pattern of paired, functionally similar pit structures. Household organization was redundant, implying repeated, seasonal occupation rather than year-round habitation. Using this model, the role of women in the West Branch household is explored. Connections among traditional women's activities reveal a complicated web centering on farming and associated technologies, including storage technology, pottery manufacture, food preparation, and supporting ideology.

**Widga, Chris (University of Kansas)**

[2] *Late Holocene Bison Biogeography: Morphological and Biogeochemical Perspectives*

During the late Holocene bison expanded throughout North America and at least two sub-specific taxa have been identified that reflect both a grassland and woodland niche (Bison bison bison and Bison bison athabasca). Patterns in cranial and post-cranial morphology indicate strong affinities between the central/northern Great Plains bison populations and animals in the northern Great Basin. Additionally, female animals from the Big Bone Lick locality in Kentucky show cranial morphology and body-growth patterns distinct from the Great Plains. The implications of ongoing biogeochemical studies of serial enamel samples from bison third molars (d18O, d13C and 87Sr/86Sr) will also be discussed.

**Wiederhold, Jim [69]** see Pevny, Charlotte

**Wiewall, Darcy (University of California, Riverside)**

[134] *Beyond Mounds: Locating late Postclassic and Colonial House Lots at Lamanai, Belize*

Previous research at the site of Lamanai, Belize, noted the absence of surface visible residential platforms dating to the Late Postclassic and Early Colonial Periods. However, excavations revealed that residential areas may lie hidden just centimeters beneath the ground surface. This paper discusses the intensive post-hole sampling strategy employed to locate and delineate house lots in areas that have no surface visible mounds or what is often referred to as "vacant" terrain. The method demonstrated that "vacant" areas at Lamanai hold great potential in terms of providing insight into Maya domestic life at the time of Spanish contact.

**Wiewall, Darcy (University of California, Riverside) [41]** *Discussant*

**Wilbanks, John (Science Commons) [61]** *Discussant*

**Wilcox, David (Museum of Northern Arizona) [15]** *Discussant*

**Wilcox, David R. (Museum of Northern Arizona), Dennis Gilpin (SWCA, Inc.), David A. Gregory (Center for Desert Archaeology) and J. Brett Hill (Center for Desert Archaeology)**

[141] *Chacoan Settlement Patterns Through Time*

Sometimes it is useful to take a systematic look at what is now known about a subject so that active theoretical debate can continue on a sounder basis. A database of all known Chacoan great houses and great kivas has been assembled. After a critical discussion of our inclusion criteria and potential sources of error, we present a series of six settlement pattern maps, A. D. 900-1150. Together with the great kiva sites, the distributions of five size classes are shown. A series of empirical generalizations is then presented with a discussion of fruitful directions for future research.

**Wilcox, Michael (Stanford University)**

[114] *Indigenous Archaeology, Postcolonial Studies and the Borderlands: A View from the American Southwest*

What role has borderlands or contact period archaeology played in the marginalization of contemporary Native Americans? Since the passage of NAGPRA in 1990, archaeologists have struggled to theorize, develop and implement a kind of archaeological practice which speaks to the interests and needs of archaeologists and Native Americans alike. One possible approach

infuses the traditional narratives of contact with a new and more complex set of questions. Rather than "explaining" the disappearance of Indians from the historical and political present, (and in so doing, further alienating Indians from the past) traditional elements of disease, military conquests and acculturation require critical reexamination if we are to reverse the popular notion that Indians are a perpetually vanishing People. For reasons explored in this paper, "the borderlands" have traditionally become the mythic sites of disappearance from not only historical texts, but also from a contemporary political and cultural landscape. This paper addresses disease, acculturation, assimilation and "conquests" from the perspective one of the 4 million "invisible Indians" in the United States.

**Wilcox, Michael (Stanford University)**

[20] *Reexamining the "Guns, Germs and Steel Model of Contact Period Archaeology:" Archaeological Narratives and the "Invisible Indians" Who Passed NAGPRA*

What responsibilities do archaeologists bear in educating the public about contemporary indigenous peoples? How do the narratives of archaeology contribute to widely held perceptions of Indians as either "extinct," "failed," perpetually vanishing, pathologized, or "threatened" peoples? Are all archaeological sites (by definition) examples of "failed" social experiments? Do archaeological narratives of failed adaptation, evolution, resource acquisition or environmental degradation contribute to the contemporary marginality of Native Americans within American culture and politics? This paper argues that archaeologists should critically re-examine narratives of contact and colonization which render contemporary Native Americans (both on and off the Rez) invisible. Using interdisciplinary methods, I argue that narratives of contact and colonization have been uncritically accepted and reproduced by historians, anthropologists and most importantly, archaeologists.

**Wilcox, Waldo [34] Discussant**

**Wilke, Philip (University of California, Riverside), Leslie Quintero (University of California, Riverside) and Gary Rollefson (Whitman College)**

[78] *Technology, Use-Life History, and Typology of Acheulian Bifaces from Ain Soda, Jordan*  
Analysis of >1,000 morphologically classifiable Acheulian bifaces from Ain Soda, Jordan, revealed that >90% of them are still technologically classifiable as resharpened, bifacial, tranche cleavers. They are remarkably sophisticated tools displaying complex use-life histories that can be grouped into stages ranging from initially produced to fully exhausted. These stages offer abundant insight into the cognitive processes of Homo erectus, including tool design and maintenance strategy, assessment of remaining tool use-life, and anticipated future tool needs vis-a-vis available raw material. They are a valuable technological and behavioral alternative to Bordesian biface types defined largely on plan view.

**Wilke, Philip [78] see Rollefson, Gary; see Quintero, Leslie**

**Williams, Marikka**

[118] *Interpreting Prehistoric Settlement Patterns with GIS: Site-Catchment Analysis in the Upper Trinity River Basin of North Central Texas*

Archaeologically site-catchment analysis produces valuable information regarding prehistoric subsistence strategies and social organization. Digital access to data permits the incorporation of multiple layers of information into the process of synthesizing regional archaeology and interpreting corresponding spatial patterning. GIS provides a means to integrate environmental and archaeological data into an effective tool. To fulfill the objectives of this thesis, GIS is employed to construct site-catchment areas for archaeological sites and implement multivariate statistical analyses on environmental attributes of catchments in correlation with assemblage data from sites. Analytical results are summarized in a model of prehistoric settlement patterns in North Central Texas.

**Williams, Michele (Miami University)**

[145] *How Do We Identify Archaeomedicines?*

Paleoethnobotany in Eastern North America has focused on the interpretation of plants as caloric or technological items with an implicit understanding that plants were part of prehistoric ritual and medical systems as well. In an effort increase our recognition of potential archaeomedicinal plants, characteristics shared by ethnographic plant-based medicines have been identified. The resulting characteristics were tested against select paleoethnobotanical data from the American Bottom.

**Williams, Stephen [122]** *see* Browman, David

**Williams, Steven [3]** *see* Chatman, Kelley

**Williams-Beck, Lorraine (Universidad Autónoma de Campeche) and Joseph W. Ball (San Diego State University)**

[159] *A Chenes Perspective on the Maya Ceramic Analysis: The View from Acanmul*

Although Smith's original work focused on the site of Uaxactun in Peten, Guatemala, ceramic relationships of some sort exist throughout the Yucatan peninsula. This paper outlines new research at Acanmul, Campeche, in southwestern Yucatan. The site shares similarities with Peten in some eras. Of particular note, it is linked to Chenes area sites during the Classic Period.

**Williamson, Andrew (Sagebrush Consultants), Herbert Maschner (Idaho State University) and Garrett Knudsen (University of Cambridge)**

[71] *Aleut Life on the Eastern Frontier: The Archaeology of Hot Springs Village*

The Hot Springs Village Site is one of the most important ancient villages in western Alaska. Occupied between 4000 and 800 years ago, this site is a massive collection of houses, four-meter middens, ivory and whalebone sculptures, and thousands of artifacts. The majority of the Hot Springs excavations were conducted in the 1970s and 1980s by a Japanese team led by Hiroaki and Atsuko Okada. In 2002, the materials from those excavations were shipped to Idaho State University and an analysis of the collections was begun. These analyses include a complete investigation of the lithic remains, new radiocarbon dates, a reanalysis of the stratigraphy and housefloors, and ongoing studies of art and other organic technologies. We will demonstrate that Hot Springs was an early Aleut village composed of complex hunter-gatherers and we will highlight a shift from shaman-based leadership to hunter-based leadership.

**Williamson, Andrew [71]** *see* Falkner, Michael

**Willis, Katherine (University of Oxford)**

[43] *How 'Virgin' is Virgin Rain Forest?*

Recent archaeological and palaeoecological investigations are showing that many so-called blocks of 'virgin' rainforest may not be as pristine as originally thought and may in fact have undergone substantial prehistoric modification. The implications of these studies are far-reaching and show that some areas of rainforest thought to be 'pristine' may in fact be in a process of regeneration following long-term human interaction and modification in prehistory. Beyond pure interest in the antiquity of tropical rainforests and how humans may have shaped them, these studies have important implications for conservation biology, geography, and anthropology. This paper explores these issues from a global perspective.

**Willis, Katherine [43]** *see* Brncic, Terry

**Willis, Mark (Blanton & Associates) [16]** *Discussant*

**Wills, W. H. (University of New Mexico)**

[154] *The Case for a Hydraulic Society: Chaco Canyon during the Bonito Phase*

Gwinn Vivian's immense legacy to the archaeology of Chaco Canyon, New Mexico, is closely identified with his research on the social impact of irrigation. Recent geomorphological research in the canyon and new archaeological fieldwork indicate that water management was a critical element in the development of large masonry buildings called "great houses." Vivian's pioneering studies provide the foundation for new perspectives on the relationship between water and social complexity during the Bonito phase (ca. A.D. 900 to 1140).

**Wilshusen, Richard (University of Colorado)**

[139] *Small Hamlets to Early Great Houses: The Emergence of Villages in the Mesa Verde Region between AD 200 and 900*

This 700-year period between Basketmaker II and Pueblo I in the Mesa Verde region illustrates the turbulent, yet uniform, processes which contribute to village formation. In AD 250 maximum regional population is 500, and settlements have limited distribution and consist of hamlets of 1-4 households. By AD 850 settlements typically are villages of 15-50 households and regional population is at least 8,000. Several pueblos appear to function as early great houses. Yet, the path between these two points is a crooked one, with at least two major regional depopulations and several key shifts in economic strategy.



**Wilson, C. Dean and Sergio F. Castro-Reino (Desert Archaeology, Inc.)**

[23] *Views of Coalition Period Pottery Production and Exchange from Los Alamos and Beyond*  
Pottery recovered by the Los Alamos National Laboratory provide important clues about pottery economy among groups on and near the Pajarito Plateau. Basic style, manipulations, and paste selection of decorated and utility wares indicate strong connections with the Northern Rio Grande and isolation from other Southwestern regions. Temper data indicate that potters producing tuff-tempered decorated white ware and anthill-sand-tempered gray utility ware utilized distinct sources on the plateau. Most temper sources were not visually distinguishable, but petrographic analysis indicates differential temper source use by site and phase, allowing evaluation of various organization and interaction models proposed for the Coalition period.

**Wilson, Dawn [100]** see *Filseth, Sara*

**Wilson, Samuel [27]** see *Descantes, Christophe*

**Windes, Thomas (National Park Service) and Stephen Lekson (University of Colorado)**

[154] *In the Shadows of Grandeur: The Early Life and Times of Gwinn Vivian in Chaco Canyon*  
Although Gwinn Vivian is well known as a preeminent archaeologist of Chacoan prehistory, few know that he spent many a summer and holiday in Chaco Canyon where his father, prominent archaeologist Gordon Vivian, worked for many decades. The opportunity to wander about the canyon provided unique glimpses of the people who once lived there and a familiarity with the harsh natural world in which the former residents once coped. These experiences provided the basis for Gwinn's later scientific contributions into Chacoan prehistory. Instead of focusing on his well-known accomplishments, we wish to explore these early beginnings and to delight in the area where he spent so much time.

**Winslow, Diane [105]** see *Wedding, Jeffrey*

**Winslow, Diane L. (HRC/UNLV)**

[111] *Two Rod and Bundle Coiling: Defining Basketmaker Culture in Southern Nevada*  
The presence of Basketmaker populations in the Lowland Virgin Anasazi region, specifically the Muddy River Valley of southern Nevada has for many years remained a topic of debate. Investigations undertaken by the Harry Reid Center for Environmental Studies at the Black Dog Mesa Archaeological Complex are defining Basketmaker culture in the region. Analysis and comparative studies of recovered basketry has revealed tradition consistent both in style and technique to well-established Basketmaker period sites in southern Utah and northern Arizona.

**Winter, Eugene [127]** see *Dalton, Ronald*

**Winter, Marcus (Instituto Nacional de Antropología e Historia)**

[81] *The Southern Isthmus of Tehuantepec: Changing Patterns of Ethnicity and Social Complexity*  
The southern Isthmus of Tehuantepec combines a stark environment of rugged mountains, dry and windy coastal plain, erratic rainfall and flood-prone rivers with a cultural mosaic of five ethnic and linguistic groups: Chontals, Huaves, Mixes, Zapotecs, and Zoques. This paper incorporates previous investigations and the results of recent research, including excavations in the Rio Los Perros and Jalapa del Marques valleys. It attempts to explain how local processes and interaction with groups in neighboring regions, such as the Valley of Oaxaca, the Olmec heartland, highland Chiapas, and the Soconusco, led to changing patterns of ethnicity and social complexity in the southern Isthmus.

**Wise, Karen (Los Angeles County Museum of Natural History)**

[18] *Preceramic Mortuary Practices, Settlement and Complexity on the South-Central Andean Coast*

The extraordinary complexity and diversity of mortuary practices seen during the middle and late Preceramic (or Archaic) Period on the south-central Andean coast has yet to be fully catalogued and published. The cultural significance of the range of mortuary practices seen is also poorly explored. In this paper, I examine mortuary practices between roughly 8000 and 1000 B.C. in the coastal Atacama desert of northern Chile and southern Peru with reference to archaeological sequence and settlement data. I explore the relationship between Chinchorro, Quiani, and other mortuary traditions and the development of the larger cultural traditions of the south-central Andes.

**Wobst, H. Martin (University of Massachusetts, Amherst) [89]** *Discussant*

**Woldekiros, Helina (University of Florida)**

[98] *Chipped Stone Technological Organization and Early Agricultural Settlements: Parsing out Mobility and Raw Material Accessibility*

This paper uses chipped stone artifacts to understand assemblage variability in the Mogollon Rim region. Qualitative and quantitative data are used in comparisons of four sites, two lying above the Rim on the Sitgreaves National Forest and the other two lying below the Rim in the Forestdale Valley, with different local raw materials. Sites in each location include one dating to the Early Pithouse period (AD 200-600) and one to the Pueblo IV period (AD 1275-1400), representing contrasting patterns of residential stability. Paired comparisons allow discussion of the relative effects of raw material accessibility and residential mobility on the assemblages.

**Wolf, John (Stanford University)**

[160] *Redefining Chavin's Ceramic Sequence: Insights From a Formative Urban Settlement at Chavin de Huantar*

The nature, definition and temporal position of ceramic designs associated with the site of Chavin de Huantar have been subject to debate and discussion for several decades. Recent excavations (2000, 2001, and 2003) at La Banda, directly across the Rio Mosna from the monument complex, have produced an extensive collection of ceramic sherds. The analysis of the decorative designs suggests a re-definition of the Chavin ceramic sequence that may be more reflective of the actual architectural sequence of the monument itself.

**Wolff, Christopher (Southern Methodist University)**

[9] *Early Colonization Strategies of Northern Labrador*

The earliest people in northern Labrador have long been thought to have had a maritime-focused subsistence strategy. My paper will examine the validity of that claim by assessing several variables, including subsistence, site location, and paleoenvironmental data. I will discuss the environmental background in to which the late Paleoindian/early Maritime Archaic peoples moved in to, and assess the options they had open to them at that time. This will include an examination of other possible seasonal or year-round terrestrial resources that could have sustained a colonizing population in the newly deglaciated and often unpredictable landscape of northern Labrador.

**Wolverton, Steve (University of North Texas)**

[130] *Natural Trap Ursid Mortality and the Kurtén Response*

Ursid mortality data help evaluate associations between cave-bear (*Ursus deningeri* and *U. spelaeus*) and hominid (*Homo* sp.) remains. Data from Lawson Cave, Missouri indicate that young black bears (*Ursus americanus*) are prone to capture in natural traps. Data from Sima de los Huesos, Spain, where cave-bear and hominid remains are found together, suggest the bears died in a natural trap. New data from Jerry Long Cave, Missouri, support that natural traps capture young-adult bears. Ursid mortality data are relevant to the Kurtén Response, which implicates human encroachment on ursid habitat as causal in the cave bear's extinction.

**Wolyniec, Renata (Edinboro University of PA)**

[147] *Journalism, Politics, and Looting: Case Studies from Afghanistan and Iraq*

Two events have yielded unprecedented media coverage: the destruction of the Bamiyan Buddhas in Afghanistan in March, 2001 and the looting of the Iraq's National Museum in Baghdad in April, 2003. Print media not only reported the events, but also served as vehicles for mobilizing, directing, and sustaining public opinion. In most cases, ownership of the archaeological remains was claimed by the world, in itself a rare event. Closer examination of the articles disclosed that political agendas were promoted as part of the coverage of destruction and looting of archaeological remains.

**Wood, Amy (CSU-CEMML Fort Drum)**

[5] *Prehistoric Predictive Modeling the Western Adirondacks*

The physiography, topography, and accessibility to the Western Adirondack region have made systematic prehistoric survey of the area difficult, even though new sites are being discovered in similar areas throughout the Northeast. Predictive modeling of Western Adirondack landforms provides a tool for targeting future field work. The new model uses line of sight, least cost distance pathways, viewshed analysis, and commonalities of site attributes to determine the most probable areas of site locations. This model should increase the rate of prehistoric site discovery and assist in developing meaningful management plans for the region.

**Wood, Spencer [71]** *see Huntly, Nancy*

**Wood, W. Raymond [27]** *see Ahler, Stanley*

**Woodford, T Zach (Brown University)**

[3] *A Steam Boat in the Tennessee River near Florence, Alabama*

This poster will examine a phase one research project conducted on a steamboat wreck in the Tennessee River. A mapping and photographic survey was carried out in order to learn the construction techniques utilized in the building of this ship. This information was used to help determine an approximate age for the wreck and to determine if there would be need for excavations to be carried out. The research also attempts to link the steamboat with the people conducting the steamboat river trade throughout history Florence, Alabama.

**Wooding, Stephen [85]** *see Jorde, Lynn*

**Woods, William I. [43]** *see Petersen, James B.*

**Woodson, Kyle (Gila River Indian Community) and John Raveslout (Gila River Indian Community)**

[69] *New Insights on Hohokam Canal Irrigation Systems on the Middle Gila River, Arizona*

Early research on canals in the Middle Gila River Valley by archaeologists like Emil Haury and Richard Woodbury formed the basis of the first influential models on the technology and organization of Hohokam canal irrigation agriculture. Canal studies undertaken since then have expanded our understanding of prehistoric irrigation systems and require us to consider different perspectives on these issues. This poster presents new insights into Hohokam canal irrigation technology and organization based on recent investigations along the middle Gila River. We focus on the structural and organizational dynamics of the Snaketown and Santan canal systems as case studies.

**Woodson, M. Kyle [69]** *see Rice, Glen E.*

**Woody, Alanah [35]** *see Quinlan, Angus*

**Worman, F. Scott (University of New Mexico) and James Boone (University of New Mexico)**

[100] *Culture or Climate? Identifying Anthropogenic Environmental Change in Islamic Period Southern Portugal*

Linking environmental change to human activity remains a difficult task for archaeologists. The authors report on geoarchaeological research focused on identifying the existence, timing and extent of anthropogenic ecological degradation in southern Portugal during the late Roman, Islamic and Christian Medieval periods. Preliminary results, based on archaeological survey and detailed studies of hillslope soils and fluvial deposits, suggest that increased population densities during the Islamic period caused widespread erosion and diminished agricultural potential. Ongoing research promises to illuminate the nature of the Islamic state in Europe, the conditions that affected its rise and fall, and its interactions with rural populations.

**Wright, David (Brigham Young University), Marco Alvarez (Brigham Young University) and Richard Terry (Brigham Young University)**

[50] *Soil Resources of the Petexbatun Region, Guatemala in Relation to Ancient Maya Agricultural Production*

Agriculture of the ancient Maya in the Petexbatun Region of Guatemala varied over time and space. We collected soil samples from around the archaeological site of Aguateca, Guatemala to measure the extent of ancient agriculture. We characterized soil properties, including 13C/12C ratios that serve as an indicator of ancient cultivation maize, a C4 plant. The soil samples were collected from transects to the north and south of the site and from various landforms, such as depressions, slopes, and wetlands. We find that maize was cultivated extensively but not uniformly in the region over a long period.

**Wright, Joshua (Harvard University)**

[125] *New Lithic Finds at Baga Gazarynn Chuluu*

This paper will describe a portion of the progress of the on-going full coverage survey at Baga Gazarynn Chuluu, Mandalgov, Mongolia. To date, we have recovered a wide array of Mesolithic remains, revealing a complex landscape of non-mortuary stone monuments and microlithic artifact scatters. Our survey data reveals extensive information on patterns of logistical mobility and landscape use in the steppe-desert as well as the close relation of habitation sites to large monuments from the time preceding the appearance of Bronze Age pastoral nomadism in the region.

Wright, Lori [72] *see* Price, T. Douglas

**Wright, Rita (New York University)**

[20] *Material Possessions: Afghanistan's National Heritages and Archaeological Ethics*

This session challenges archaeologists to consider their place in the broader scheme of the western academic canon, specifically our potential contributions to post-colonial studies. One aspect of the academic canon has been its aversion to practical or applied topics, an issue not addressed by post-colonial theory. This paper focuses on the preservation of national heritages and our ethical stands with respect to the trade in antiquities. After a flurry of excitement within some archaeological quarters with the destruction of the Bamiyan statues, individual archaeologists and our professional organizations have been silent, in spite of continued looting and destruction.

Wrinn, P.J. [14] *see* Blickstein, J.I.B.

**Wriston, Teresa (Far Western Anthropological Research Group, Inc.)**

[26] *Ethnohistoric Adaptation to Euroamerican Settlement of the Carson Sink*

In addition to the archaeological record, we know from oral histories, ethnographic literature, and written accounts of early European explorers, that marsh and lacustrine resources were important to Native Americans of the Great Basin. However, few researchers have examined how Euroamerican waterway modification affected the availability of these key resources to Native Americans. These changes are likely reflected in Native American social structure, landscape use, and tool and food choices during the historic-period. Using information available for the Carson Sink of Nevada, Northern Paiute adaptation to farming and ranching in one of their core resource areas is explored.

**Wrobel, Gabriel (University of Mississippi)**

[50] *Determining Burial Chronology by Fluoride Analysis of Bone from the Maya Archaeological Site of Chau Hix, Belize*

Fluoride levels measured in a bone sample did not consistently reflect relative dates of the burials. Comparisons of samples grouped by different burial conditions showed that fluoride concentrations in bone are highly dependent on water drainage. Burials that are shallow or that are in intrusive pits with loose soil consistently had higher fluoride concentrations than earlier interments buried in tightly packed construction middens or beneath plaster floors. Comparisons of samples grouped by age-at-death and comparisons of multiple samples from the same individual show that fluoride levels vary consistently according to the density and thickness of the bone rather than date.

**Wurst, LouAnn (SUNY Brockport) and Sue Novinger (SUNY Brockport)**

[153] *In the Belly of the Beast: Theory, Ideology and Archaeological Identity*

The dominant ideology of archaeology's class structure is that we labor in either academia or CRM. Examining the internal hierarchy of academia forces the recognition that most archaeologists work at liberal arts institutions where their labor functions to reproduce the dominant system. This realization prompts questions about where theory fads come from and how they function ideologically. In this paper, we consider these issues in the context of how theory is used to construct an archaeological identity that obscures the role we play within the dominant political-economic framework of higher education geared toward reproducing the structure of capitalist social relations.

**Wurtzburg, Susan (University of Utah)**

[24] *Gender and Archaeology in Utah*

In recent decades feminist scholarship has played an increasing role in archaeology. The growing interest in gender has resulted in projects documenting the activities of women archaeologists with the goal of publicizing women's contributions which were often discounted in the male-dominated field of archaeology. This attention to gender has tended to concentrate research on certain regions of the U.S.A. Some areas, such as Utah have received less attention. This work examines Utah archaeology, investigating both the numbers and status of women currently active in state archaeology and the history of Utah archaeology with a focus on women's contributions to the field.

Wylie, Alison (Columbia University) [107] *Discussant*; [126] *Discussant*

**Wyllie, Cherra (University of Hartford)**[58] *The Lady or The Jaguar?: Rio Blanco Cihuateteo Bowls from Veracruz*

Veracruz artists adorned steep-sided bowls with narrative scenes rendered in sculpted relief. These Rio Blanco ceramics illustrate Late Classic creation mythology, rubber ballgame rituals, and long distance trade, as costumed figures animate the rotational surface of the vessel walls. Images of the cihuateteo, women who die during childbirth, are ubiquitous in southern Veracruz, underlying a death cult connected with the underworld, childbirth, and midwifery. Consistent with this tradition, parturient female iconography adorns a subset of Rio Blanco bowls, the full-frontal apotropaic pudendum conveying the power of regenerative transformation, a feline portal between human and supernatural, the living and the dead.

**Yaeger, Jason (University of Wisconsin) and Gregory Borgstede (University of Pennsylvania)**

[20] *Social Context and the Construction of Alternative Archaeological Histories in Belize and Postcolonial theory* often claims global relevance, but we argue that it is always refracted through local lenses. We use three recent case studies in Belize and Guatemala to argue that the specific local social contexts in which archaeological knowledge is produced condition not only the resulting histories, but also the ways by which they are constructed. We pay special attention to the roles of different constituencies or stake-holders and of multi-scalar political-economic structures in the construction of archaeological histories, especially as they impact the construction of the archaeological research design, its implementation, the interpretation of results, and their subsequent dissemination.

Yaeger, Jason [20] see Borgstede, Gregory

Yager, Karina [66] see Covey, R. Alan

**Yang, Dongya (Simon Fraser University), Aubrey Cannon (McMaster University), Alan McMillan (Simon Fraser University) and Dean Hildebrand (British Columbia Institute of Technology)**[60] *DNA Species Identification of Archaeological Faunal Remains*

Ancient DNA analysis has now made it feasible to obtain accurate species identifications for archaeological remains. DNA identification can be applied to all types of faunal remains regardless of their completeness and maturity. Through two case studies, we present the advantages of DNA analysis of archaeological faunal remains. We also discuss the associated challenges that may affect its applicability. The case studies are species identification of salmon remains (7000-500 BP) and whale remains (4000-200BP) from archaeological sites in British Columbia, Canada.

Yang, Dongya [101] see Speller, Camilla; [60] see Watt, Kathy

**Yates, Donna and Maeve Skidmore**[87] *Interaction between Ritual and Domestic Space*

The original proposal of this research program was that the area immediate to the west the Akapana pyramid consisted of large and open ritual spaces. However, the excavations of the area surveyed by georadar suggest a more complex pattern of ritual and monumental spaces. This apparent co-habitation of the ritual and domestic realm challenges ideas of strict boundaries between the sacred and the profane. This research presents an alternative model for the use of space in the monumental core and suggests that the basic structural principles of this spatial pattern date to the Formative Period.

Yeatts, Michael [74] see Poseyesva, Lanell

**Yesner, David (University of Alaska), Douglas Veltre (University of Alaska), Kristine Crossen (University of Alaska) and Russell Graham (Penn State University)**[106] *Mid-Holocene Mammoths from Quagnax' Cave, Pribilof Islands: Implications for Megafaunal Extinction and Peopling of the Americas*

Research in 2003 at Qagnax' Cave, St. Paul Island, Pribilof Islands, has provided evidence of mid-Holocene mammoths on this isolated, volcanic island uninhabited until the late eighteenth century. Dates on the mammoth remains are nearly 2,500 years younger than any previous dates from the Pribilofs or North America as a whole. Extinction of mammoths on the Alaska mainland, and continued survival on the Pribilofs, was primarily a function of human predation- Surviving mammoths on the former land bridge coast should have been visible to any early coastal

migrants. Late Holocene habitat shrinkage and continued vulcanism resulted in their final extinction on the Pribilofs.

**Yoder, Tom [97]** *see* *Potter, James*

**Yohe, Robert [46]** *see* *Parr, Robert*

**Yonekura, Kaoru (Center for Materials Science, Keio University), Hiroyuki Hasegawa (Center for Materials Science, Keio University) and Tetsuya Suzuki (Center for Materials Science, Keio University)**

[14] *The Relationship between Physical Properties of Paleolithic Raw Materials and Stone Tool Manufacture*

We analyzed physical properties of the Paleolithic materials to examine the influence of the quality of these materials on manufacturing tools. Bifacial points excavated from site in the northeastern region of Japan were chosen as an object for this study, and hardness and strength of the artifacts were measured. As a result, most of the unfinished points were made of harder and stronger materials compared with completed points. It should have been difficult to shape the hard and strong materials into tools elaborately. It was clear that the physical properties of lithic materials could affect the manufacture of tools.

**Yorgey, Suzanna C. (Tulane University) and Matthew D. Moriarty (Tulane University)**

[73] *Rural Complexity in the Peten Lakes Region: A View from the Site of Akte, Peten, Guatemala*  
In 2002 and 2003, regional investigation by the Motul de San Jose Project included excavation and mapping at the site of Akte. Akte is a small site located 7.2 km northwest of Motul de San Jose near the confluence Rio Akte and the Arroyo Cantetul. Despite the small size of the site, field excavations documented a long history of occupation and located fragments of seven monuments. Results of investigations near three of these monuments and recently completed artifact analysis are utilized to discuss Akte's possible function as a small, but relatively complex rural site within the Motul hinterland.

**Young, Christopher (National Park Service, Western Arctic National Parklands)**

[28] *An Arctic Small Tool Tradition (ASTt) Tent Ring from Anaktuvuk Pass, Alaska*  
During a reexamination of the Tuktu-Naiyuk site in 2004, NPS investigators identified and excavated a stone tent ring dating to approximately 2,500 years ago. Previously published data from the site draws on aggregates of various artifact types collected from across a vast site area to construct a chronology of cultural succession for north central Alaska. The 2004 excavation represents a discrete manifestation of one of those postulated components present in the Anaktuvuk Pass region 2,000-4,000 years ago.

**Young, D. Craig [88]** *see* *Duke, Daron G.*

**Young, John [108]** *see* *McKillop, Heather*

**Young, Lisa C. (University of Michigan) and Dennis Gilpin (SWCA)**

[139] *The Organization of Space, Social Relations, and Economics in Pithouse Communities in Northeastern Arizona (A.D. 200-800)*

The pioneering archaeology of northeastern Arizona by Kidder, Guernsey, Roberts, and Gladwin laid the foundations for understanding early villages in the northern Southwest. Subsequent research, much of which is in the gray literature, has both increased the amount of data on this topic and documented the range of variation in pithouse sites dating to between A.D. 200 and 800. This paper examines chronological and spatial variation in house form, site organization, social interaction, and economic strategies to identify factors that lead to increased formalization in the use of space that characterized sites beginning in the 10th century A.D.

**Young, Lisa [139]** *see* *Gilman, Patricia*

**Young, Matthew [46]** *see* *Rider, Micala*

**Zagarell, Allen (Western Michigan University)**

[85] *Rock Art and Caste-like Communities in the Nilgiri Hills of South India*

The traditional communities of the Nilgiri highlands of South India have been characterized as having a proto-jajmani like relationship to one another; i.e., displaying many of the attributes of Indian caste communities. I will examine the rich rock art, including a series of unpublished sites, and hero-stone traditions of the region and compare them to what one might expect from a caste-

organized community and discuss some of the complexities in the identification of caste communities in an archaeological context.

**Zaitsev, Nikolai N. [4]** *see Frashuer, Anya C.*

**Zaragoza, Diana (Instituto Nacional de Anthropologia e Historia)**

[152] *The Ritual use of Ceramics: The Case of Head Pots. Northeastern México, Southeastern United States, and Coastal Peru*

The use of ceramics for ritual purposes is wide spread around the World. The case I want to shown is about Head Pots and their use in ritual ceremonies linked to human sacrifice by decapitation. As we know decapitation is one of the most extended ways for human sacrifice at least in America. The production of head pots by the people of the Mississippian cultures and those from the Huastec region, among the representations of trophy heads in Peru, are just an example of this way of thinking, and how they expressed their beliefs.

**Zaro, Gregory (University of New Mexico)**

[18] *Diversity Specialists: Late Chiribaya Production Strategies at the Coastal Desert Spring Site of Wawakiki, Southern Peru*

Pre-Hispanic socio-economic organization along the Andean coast is often understood within the "Horizontality" model. In this scenario, coastal communities engaged in specialized economic activities while exchanging for products with other communities of specialists. Throughout the coastal reaches of the Osmore drainage, settlement distribution and both residential and mortuary assemblages of Late Intermediate Period Chiribaya populations generally reflect this socio-economic pattern. However, investigations at the coastal site of Wawakiki demonstrate that some communities along the coast diversified their production by intensively engaging in multiple economic activities, suggesting a much more varied and complex means of organization within a shared cultural tradition.

**Zeanah, David (California State University, Sacramento)**

[1] *Behavioral Ecology as a Paradigm for Research and Management of an Archaeological Record in the Carson Desert of Western Nevada*

Catastrophic flooding of Stillwater Marsh in the 1980s exposed prehistoric pit structures, storage facilities, refuse middens, human burials, and diverse artifact assemblages. Confronted with an unexpectedly complex record, some archaeologists shifted from salvage efforts to research designs guided by Human Behavioral Ecology (HBE). Proving productive from both research and management perspectives, HBE based approaches yielded unanticipated insights about mobility, subsistence, technology, health, and sexual division of. In addition, predictive site location models based on optimal foraging theory continue to serve as planning tools for cultural resource managers throughout the region.

**Zedeno, Maria-Nieves (University of Arizona) [48]** *Discussant*

**Zeder, Melinda (Smithsonian Institution)**

[121] *Modeling the Emergence of Neolithic Society from the Perspective of the Near East*

Most models of the emergence of Neolithic societies have focused on one of a number of prime movers. Population pressure, environmental change, resource optimization prerogatives, and pressures that promote unequal access to resources and social power have all been featured in explanatory frameworks for the emergence of Neolithic societies in the Near East. None of these models stand-up well against the increasingly fine grained empirical record of emergent Neolithic society from this region. It is becoming increasingly clear that a more nuanced approach is needed capable of weaving together all of these factors into a more compelling explanatory fabric.

**Zeder, Melinda (Smithsonian Institution) [92]** *Discussant*

**Zegarra, Liliana [128]** *see Huaman, Luis*

**Zeidler, James (Colorado State University)**

[136] *Rank-Size Relationships and Prehispanic Settlement Systems in the Jama Valley, Coastal Ecuador*

Rank-size graphs have become a common tool for assessing regional settlement data in archaeology, especially for characterizing the nature of population distributions and social interaction across a regional landscape. This paper explores Drennan and Peterson's (2004)

recent approach to rank-size analysis that calculates the A coefficient of shape for rank-size plots along with error ranges for specified confidence levels. Using settlement data from the Jama River valley of coastal Ecuador, the approach is evaluated with respect to the information it provides on intra-valley settlement dynamics, mound-building, and political centralization of successive Jama-Coaque social formations and their Formative Period precursors.

**Zender, Marc [54]** *see Taube, Karl*

**Zimmerman, Larry (Indiana University - Purdue University Indianapolis) [39]** *Discussant*

**Zorpidu, Sultana**

[138] *Consuming Archaeology While Shopping: The Intersection of Heritage and Economics*  
Archaeological artifacts and symbols, especially those connected with Greek antiquity, are some of the most popular and well commercialized symbols of the European heritage. The specific qualities associated with antique names and objects lend marketing value directly connected with the perception of the past. This value cannot be translated into currency for it concerns visual cultural codes, cultural land gender identification and nostalgia for an imaginary past. This paper will propose ways of reading and interpreting the popularity of antique themes within marketing strategies.

**Zunie, Jerome (ZCRE) and Jonathan Damp (ZCRE)**

[74] *The History and Future of Archaeological Research at Zuni Pueblo*  
More than 100 years ago, Cushing initiated research at Zuni Pueblo and archaeologists have maintained that interest ever since. Each wave of archaeologists has come to Zuni with a research agenda. Cushing was followed by such luminaries as Hodge and Kroeber. With the development of an archaeology program under the auspices of the Pueblo of Zuni in the 1970s the research paradigm evolved. Archaeological investigations in Zuni Pueblo are carried out by ZCRE, an independently managed organization of the Pueblo of Zuni. These investigations function within a milieu of research, compliance with tribal, state, and federal laws, and Zuni cultural tradition.