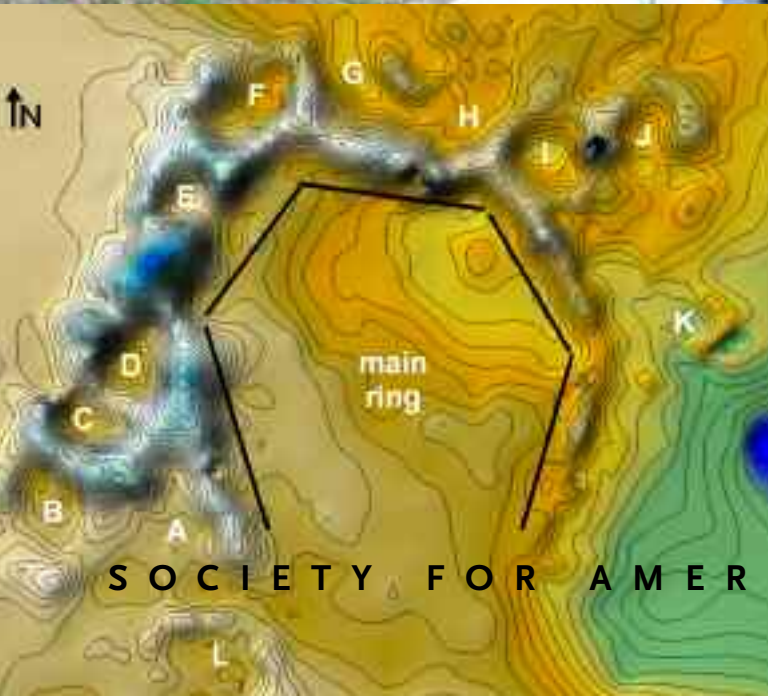


SPECIAL ISSUE: THE NEW ARCHAIC

# the SAArchaeological record

NOVEMBER 2008 • VOLUME 8 • NUMBER 5



SOCIETY FOR AMERICAN ARCHAEOLOGY

## READERS FROM THE SAA PRESS



NEW! *An Archaeological Perspective on Ritual, Religion, and Ideology from American Antiquity and Latin American Antiquity*, Compiled by Gordon F. M. Rakita and Jane Buikstra. 272 pp. 2008. ISBN 0-932839-35-5. Regular Price: \$37.95, SAA Member Discount Price: \$29.95.

*Readings in Late Pleistocene North America and Early Paleoindians: Selections from America Antiquity*. Compiled by Bruce B. Huckell and J. David Kilby. 312 pp. 2004. ISBN 0-932839-26-6. Regular Price: \$27.95, SAA Member Discount Price: \$21.95.



*Ceramics in Archaeology: Readings from American Antiquity, 1936-2002*. Compiled by Hector Neff. 384 pp. 2005. ISBN 0-932839-29-0. Regular Price: \$37.95, SAA Member Discount Price: \$29.95.

*Readings in American Archaeological Theory: Selections from American Antiquity 1962-2002*. Compiled by Garth Bawden. 292 pages. 2003. ISBN 0-932839-25-8. Regular Price: \$24.95, SAA Member Discount Price: 19.95.



*Formation Theory in Archaeology. Readings from American Antiquity and Latin American Antiquity* compiled by Michael Shott. 352 pp. 2006. ISBN 0-932839-30-4. Regular Price: \$37.95, SAA Member Discount Price: \$29.95.

TO ORDER, PLEASE CALL SAA AT 202-789-8200 OR ORDER ONLINE AT [WWW.SAA.ORG](http://WWW.SAA.ORG)



# the SAA Archaeological record

The Magazine of the Society for American Archaeology

VOLUME 8, No. 5

NOVEMBER 2008

Editor's Corner	2	Andrew Duff
In Brief	3	Tobi Brimsek
Springtime in Atlanta	4	Terry Powis and Bobbi Hohmann
Exciting Archaeology in Atlanta	5	Michael E. Smith

## SPECIAL ISSUE: THE NEW ARCHAIC

*Edited by Kenneth E. Sassaman*

The New Archaic, It Ain't What it Used to Be	6	Kenneth E. Sassaman
Poverty Point and the Archaeology of Singularity	9	Tristram R. Kidder, Anthony L. Ortmann, and Lee J. Arco
Archaic Shell Mounds of the St. Johns River, Florida	13	Asa R. Randall
Late Archaic Shell Rings and Society in the Southeast U.S.	18	Michael Russo
"Archaic Period" Traditions of New England and the Northeast	23	Brian S. Robinson
Hunter-Gatherer Archaeology and the Upper Great Lakes Archaic	27	William A. Lovis
Imagining the Archaic: A View from the Middle Fraser Canyon of British Columbia	31	Anna Marie Prentiss
What's So Archaic about the Late Archaic? Recent Discoveries in Southwestern North America	36	Jonathan B. Mabry
Money Matters	41	Paul Welch
Financial Statements	42	
POSITIONS OPEN	44	
NEWS AND NOTES	47	
CALENDAR	48	



On the Cover: Top: Excavation of the South Profile, Mound A at Poverty Point (16WC5), 2005, photo by Anthony L. Ortmann; Bottom Left: Rollins shell ring complex, surface topography in 10 cm intervals, axes = meters; Bottom Right: Artist's reconstruction of the Bridge River village at peak size ca. 1100-1200 B.P. (drawing by Eric Carlson).



The SAA Archaeological Record (ISSN 1532-7299) is published five times a year and is edited by Andrew Duff.

Deadlines for submissions are: December 1 (January), February 1 (March), April 1 (May), August 1 (September), and October 1 (November); send to Andrew Duff, *The SAA Archaeological Record*, Andrew Duff, Department of Anthropology, Washington State University, Pullman, WA 99164-4910, (509) 335-7828, or email [duff@wsu.edu](mailto:duff@wsu.edu). Manuscript submission via email or by disk is encouraged. Advertising and placement ads should be sent to SAA headquarters, 900 Second St., NE #12, Washington, DC 20002, (202) 789-8200.

Associate editors include:

**Gabriela Uruñuela** [Exchanges, Mexico & Central America]

email: [gabriela@mail.udlap.mx](mailto:gabriela@mail.udlap.mx)

**Jose Luis Lanata** [Exchanges, Southern Cone]

email: [jlanaata@filo.uba.ar](mailto:jlanaata@filo.uba.ar)

**Anne Vawser** [Government]

email: [Anne\\_Vawser@nps.gov](mailto:Anne_Vawser@nps.gov)

**Susan Chandler** [Insights]

email: [susan\\_chandler@alpinearchaeology.com](mailto:susan_chandler@alpinearchaeology.com)

**Mark Aldenderfer** [Interface]

email: [aldenderfer@anth.ucsb.edu](mailto:aldenderfer@anth.ucsb.edu)

**John Hoopes** [Networks]

email: [hoopes@ku.edu](mailto:hoopes@ku.edu)

**Teresa Pinter** [Public Education]

email: [tpinter@acstempe.com](mailto:tpinter@acstempe.com)

**Jamie Brandon** [The Recent Past]

email: [jbrando@uark.edu](mailto:jbrando@uark.edu)

**Kurt Dongoske** [Working Together]

email: [kdongoske@cableone.net](mailto:kdongoske@cableone.net)

Inquiries and submissions should be

addressed directly to them. The SAA

*Archaeological Record* is provided free to

members and institutional subscribers to

*American Antiquity* and *Latin American*

*Antiquity* worldwide. The SAA *Archaeological*

*Record* can be found on the Web in PDF

format at

[www.saa.org/publications/  
thesaaarchrec/index.html](http://www.saa.org/publications/thesaaarchrec/index.html).

Past issues of the SAA *Bulletin* can be  
found at

[www.saa.org/publications/  
saabetin/index.html](http://www.saa.org/publications/saabetin/index.html).

Copyright © 2008 by the  
Society for American Archaeology.  
All Rights Reserved

Manager, Publications:  
John Neikirk

Design: Victoria Russell  
Papertiger Studio • Washington, DC

Production: Peter Lindeman  
Oakland Street Publishing • Arlington, VA



## EDITOR'S CORNER

Andrew Duff

*Andrew Duff is an Associate Professor of anthropology at Washington State University.*

This special issue on "The New Archaic" was organized and edited by Ken Sassaman. He invited the authors of these articles to summarize new research and ideas that challenge much of what we have come to think about the Archaic, and the individuals and groups that populated this increasingly antiquated spatiotemporal construct. Sassaman's introductory essay highlights the ways in which recent research undercuts, challenges, or upends traditional conceptions of hunter-gatherer societies and the Archaic. The group of papers assembled here showcases exciting and innovative research directions, findings and interpretations, and I hope you find them as stimulating as I did.

Though additional thematic or "special issues" of *The SAA Archaeological Record* are in the works, I always welcome articles, items for the "News & Notes" and "Calendar" sections, and photographs, especially high resolution vertically oriented photos that might be suitable for the cover (9 x 11 inches at 300 dpi resolution). I am happy to discuss ideas for articles, thematic issues, or other projects you would like to see appear in these pages.

I would like to again formally invite and would especially welcome articles by those based in Latin America. Submissions can cover any of a wide range of issues, periods, contexts, and topics. Please submit inquiries or materials to me ([duff@wsu.edu](mailto:duff@wsu.edu)) or the Associate Editors.



## IN BRIEF

Tobi A. Brimsek

*Tobi A. Brimsek is executive director of the Society for American Archaeology.*

### LACK OF SPACE PREVENTS IMPLEMENTING CHILDCARE IN ATLANTA

At their spring meeting in Vancouver, SAA's Board of Directors approved the motion providing childcare from a contracted firm at the annual meeting in Atlanta, *providing space could be found*. Because this meeting is under one roof, that is to say at one hotel, unfortunately, the additional two rooms throughout the length of the meeting were not available. The Society contracts its space for an annual meeting five years in advance, and while the childcare space is now part of SAA's formal space requirements, until 2012, it will be dependent on availability. Atlanta is the only city in which SAA is under one roof between now and 2012. Hopefully, space will not be as crunched at future meetings, and SAA will try once again to implement the childcare program in 2010 in St. Louis.

### 2008—A RECORD YEAR!

In 2008, the SAA membership grew to its largest ever—7,646 members. Thank you to all SAA members for their ongoing support of the Society!

### SAA 2009 BALLOT

The 2009 SAA ballot link will be sent to all members during the first week in January via email. If the Society does not have your email address, or if the email bounces back, a postcard with instructions on how to access ballot material will be mailed. To help ensure the efficiency of the web-based ballot, please remember to update your email address in the Member's section of SAAweb ([www.saa.org](http://www.saa.org)) or by emailing your updated/current email address to the SAA staff at: [membership@saa.org](mailto:membership@saa.org). And most importantly, please make sure that the email from [elections@vote-now.com](mailto:elections@vote-now.com) makes it through your spam filters!

### HAVE YOU MADE YOUR RESERVATIONS YET?

Reservations are now available for the 74th Annual Meeting at the Atlanta Marriott Marquis in Atlanta, Georgia. In addition to the regular discounted rates for SAA attendees, there are also limited student and government rate rooms available under the same roof. To reserve by phone, please call **1-866-469-5475** (North America) or **1-404-521-0000** (worldwide) and identify the correct corporate code for the room type you wish to reserve:

SAA rate rooms: **saasaaa**

Student rate rooms: **sassasa** (Students must present a current student ID upon check in to qualify for this rate.)

Government rate rooms: **sagsaga** (Government guests must present a government ID to qualify for this rate.)

To reserve online—**please use the specific link for each type of rate as identified below**. (There are live links on SAAweb—[www.saa.org](http://www.saa.org))

For **SAA-rate** rooms:

<http://www.marriott.com/hotels/travel/atlmq?groupCode=saasaaa&app=resvlink&fromDate=4/18/09&toDate=4/28/09>

For **SAA student-rate** rooms (Students must present a current student id upon check in to qualify for this rate.):

<http://www.marriott.com/hotels/travel/atlmq?groupCode=sassasa&app=resvlink&fromDate=4/18/09&toDate=4/28/09>

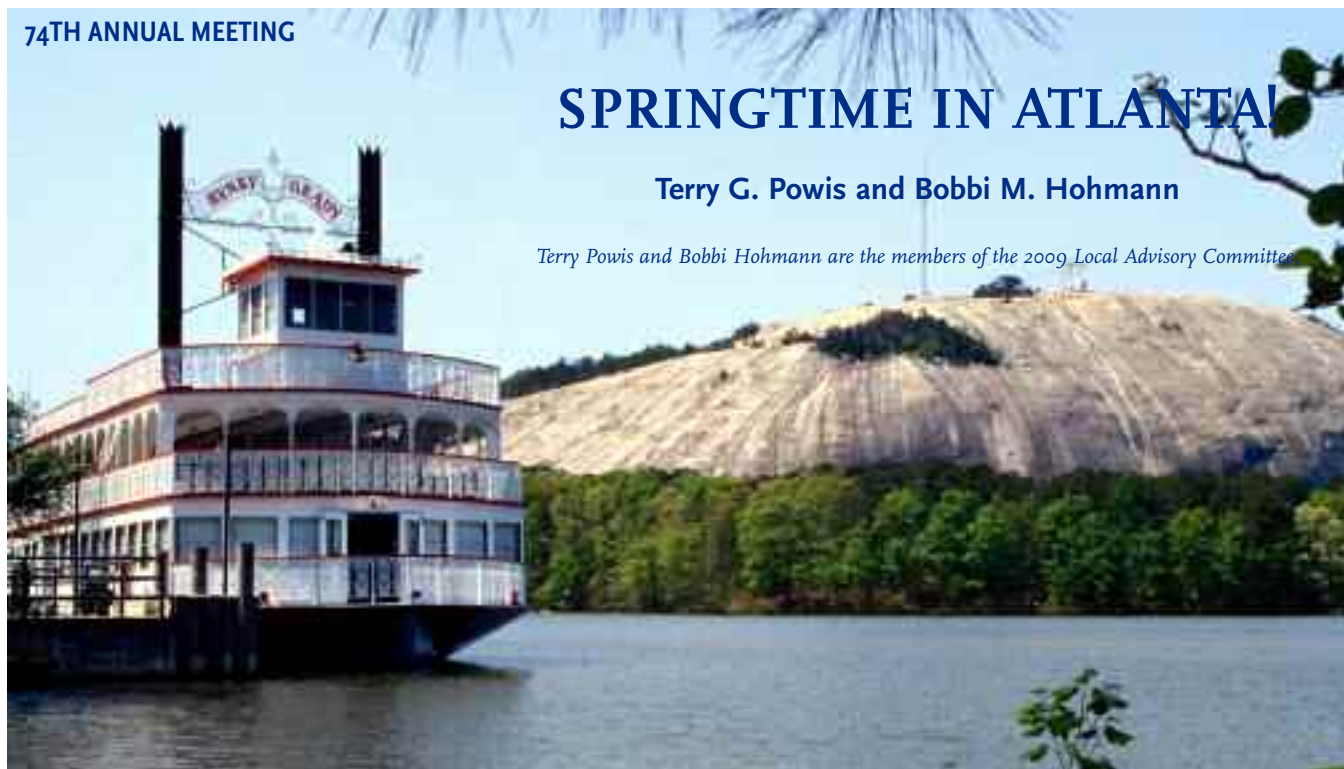
For **SAA government-rate** rooms (Government guests must present a government ID to qualify for this rate.):

<http://www.marriott.com/hotels/travel/atlmq?groupCode=sagsaga&app=resvlink&fromDate=4/17/09&toDate=4/28/09>

# SPRINGTIME IN ATLANTA!

Terry G. Powis and Bobbi M. Hohmann

*Terry Powis and Bobbi Hohmann are the members of the 2009 Local Advisory Committee*



STONE MOUNTAIN RIVERBOAT © 1998, KEVIN C. ROSE/ATLANTAPHOTOS.COM

Spring is an amazing time to visit Atlanta, so the 74th annual conference is sure to be a real treat for attendees. Atlanta temperatures are mild and humidity is low this time of year, and the city will be awash with color from the blooming azaleas and dogwoods.

SAA has arranged special excursions to prominent archaeological sites and cultural institutions in the area, so attendees will have an opportunity to learn more about the cultural and natural history of the state. Registration is required for these trips and more extensive details are provided in the preliminary program, so be sure to check them out and sign up when you register for the meeting.

Thursday's trip will be to Ocmulgee National Monument, considered by many to be the pre-eminent archaeological site in the Southeast ([www.nps.gov/ocmu/](http://www.nps.gov/ocmu/)). The site is located in Macon, Georgia, about 1.5 hours south of Atlanta. Ocmulgee's occupation spans 12,000 years, but the most prominent period of development at the site was the Early Mississippian period (A.D. 900–1150), during which time huge flat-topped earthen mounds, council chambers, and defensive features were constructed. The 702 acre park encompasses upland fields and forests with riverine woods and emerging wetlands, providing unique habitats for a rich variety of plants and wildlife.

Friday's trip will be to the Atlanta History Center, a 33-acre cam-

pus located in the beautiful Buckhead area north of downtown ([www.atlantahistorycenter.com](http://www.atlantahistorycenter.com)). The Atlanta History Center showcases permanent and temporary exhibitions on the history of Atlanta as well as Southern history, but it also has two historic homes listed on the National Register of Historic Places and period gardens to explore. The 1845 Tullie Smith Farm is a working farm with historic re-enactors.

Etowah Indian Mounds State Historic Site is the destination for Saturday's excursion ([www.gastateparks.org/info/etowah/](http://www.gastateparks.org/info/etowah/)). It is one of Georgia's premier archaeological sites and is only one and a half hours drive north from Atlanta. The 54-acre site was occupied between A.D. 1000 and 1550 and contains six earthen mounds, the largest measuring 63 feet high, a plaza, village area, borrow pits and defensive ditch. A museum in the Visitor's Center serves as an introduction to the Moundbuilder culture and the society that lived at this site. The most notable pieces in the Etowah collection are "Ike" and "Mike," the two largest effigies ever discovered at a Mississippian site.

Near the Atlanta Marriott Marquis you will find a number of lunch and dinner options as well as attractions like the World of Coke, Centennial Olympic Park, CNN Center, and the Georgia Aquarium. If you prefer to see what else the city has to offer, hop on MARTA (Metro Atlanta Rapid Transit Authority) at the convenient metro stop at the hotel and head to Decatur, Buckhead or Atlantic Station for dinner, shopping or entertainment.



# EXCITING ARCHAEOLOGY IN ATLANTA

Michael E. Smith

*Michael E. Smith is the program chair for the 74th Annual Meeting.*

HGI SKYLINE (©2008 KEVIN C. ROSE/ATLANTAPHOTOS.COM)

**T**he 2009 Annual Meeting will showcase a broad cross-section of the world of archaeology, from lithic scatters to royal tombs, from radar survey to ethics, from job-search tips to celebrations of senior colleagues. The 2009 Program Committee has been hard at work poring over titles and abstracts to put together an interesting and diverse program that will have something for everybody.

The meeting will open with the plenary session on Wednesday evening, "Archaeology beyond Archaeology." Ten archaeologists will explore the value and relevance of archaeological research to other disciplines, from economics to sustainability to urban studies; two distinguished non-archaeologists (James Brooks and Robert Costanza) will then provide expert discussion on the theme. This will be followed up on another day by an exciting forum discussion by seven distinguished archaeologists on the question, "Is Archaeology Useful?" They will consider questions such as, How and why does archaeology matter? What are the unintended consequences of archaeology? Who cares? We as archaeologists tend to think we know the answers to this kind of question, but perhaps outsiders see us differently. There will be a number of sessions on topics of public education and outreach. The twentieth birthday of the SAA Public Education Committee will be celebrated with a forum discussion of, "Public Education in Archaeology: How are We Doing?" Come find out the answer!

A number of sessions will address current hot topics from around the world. A symposium on Maya droughts will address the heated debates on the nature, timing, and social implications of droughts in the Maya region. Did drought cause the

Maya collapse? Come find out. A cross-cultural session on "Violence and Warfare as Embodied Action" will be complemented by a session on "New Perspectives on Moche Warfare." A number of regionally focused sessions explore exciting new results on topics of widespread interest. A poster symposium on the International Polar Year synthesizes new data on the circumpolar north, while a symposium on the pre-Clovis Wakulla Springs Lodge Site (in Florida) is sure to stimulate debate. What is the latest news from Chaco Canyon? Is that big carved stone found near the Templo Mayor in Mexico City really the lid of an Aztec imperial tomb? Inquiring minds want to know. Technology and urbanism, geochemistry and complexity, migration and garbage, lithics and garbage—there will be good sessions on all these and many other topics. Several distinguished and popular senior colleagues will be honored with symposia.

Don't forget the other events that you always enjoy at the annual meeting—the book exhibits, the ethics bowl, the auctions, the conversations with colleagues, the parties, the gossip, and even the business meeting (well, you *should* attend the business meeting; with Dean Snow as President even the business meeting can be fun).

We will have nearly one hundred organized symposia with almost a thousand papers. Over four hundred contributed papers will be organized into thematic sessions, and nearly four hundred posters will be shown. Our papers and posters this year cover the entire world and the whole span of human existence on the earth, so there is certainly something for every archaeologist to enjoy and learn from. I'll see you in Atlanta!



# THE NEW ARCHAIC, IT AIN'T WHAT IT USED TO BE

Kenneth E. Sassaman

*Ken Sassaman is Associate Professor and Chair of Anthropology at the University of Florida.*

**F**ifty years ago Willey and Phillips issued the definitive work of taxonomy for Americanist archaeology. In the middle of a tripartite scheme for North America they envisioned the Archaic Stage, defined “as the stage of migratory hunting and gathering cultures continuing into environmental conditions approximately those of the present” (Willey and Phillips 1958:107). Preceded by the Ice Age pioneers of a New World (Lithic/Paleoindian) and those who laid the foundation for civilization (Formative), the Archaic Stage was the purgatory of America’s developmental trajectory. Only with command of plant propagation and the settlement permanence it enabled were Archaic peoples liberated from the vagaries of nature and the limits to growth imposed by a mobile lifestyle.

Although the concept of a pan-continental Archaic Stage has long fallen into disfavor, there exists still a tendency among American archaeologists to gloss the enormous diversity of things Archaic within the broader tropes of “hunter-gatherer” and “primitive” that have shaped anthropological inquiry since the late nineteenth century. Notwithstanding the fact that these tropes accurately characterize a subsistence regime and state of great antiquity, the concept of Archaic conveys no generalizable knowledge these days about the sociality, politics, or ideology of people whose archaeological residues are encapsulated by this rubric. Archaic specialists generally appreciate this newfound perspective; those who continue to use the Archaic as a foil for contrasting things older or younger, or less or more complex, do not.

This special issue of the *The SAA Archaeological Record* showcases some recent empirical and theoretical developments that inform Archaic archaeology in North America today. Like the Old Grey Mare who had passed her prime, the old Archaic of cultural evolutionism has been put to pasture by the anomalies of new discoveries and critical analyses. We have indeed moved so far away from mid-twentieth-century characterizations of the Archaic as to render the concept misleading, if not downright meaningless. Of course, terminologies change, meanings change, and even Willey and

Phillips (1958:104–105) recognized the difficulties of the stage concept. Indeed, by the time Willey (1966) issued his magnum opus on North America, the Archaic Stage had become an Archaic Period. No matter the terminology, the emphasis these days is on documenting and explaining regional or subregional sequences of hunter-gatherer (pre)history, with increasing emphasis on interconnections among groups that shaped local adaptations. What we find is a range of variation in things “Archaic” that arguably spans all stages of Willey and Phillips’ scheme.

## Monuments without Kings

One of the most striking discoveries of late are the monuments made of earth and shell by mobile hunter-gatherer populations as early as 7,000 years ago. Showcased in this issue are early mounds of the Southeast. This region boasts the most varied, dispersed, and ancient record of monument construction on the continent, and archaeologists are puzzling over the implications of these novel data for issues of broad anthropological relevance.

Three articles on Archaic monuments lead off with the would-be Rosetta Stone of ancient mounds, Poverty Point of northeast Louisiana. When first studied in the 1950s, Poverty Point was assumed to be a late-period construction, derivative, perhaps, of the Formative cultures of Mesoamerica. Archaeologists long ago acquiesced to local origins for this development, but many questions remain about the circumstances surrounding America’s first major public-works project. T.R. Kidder is leading a new generation of archaeologists who are bringing striking new field observations to bear. Kidder’s explorations into the behemoth of Poverty Point, Mound A, shows that the mound was erected very quickly, virtually instantaneously. Moreover, Kidder has documented a grammar to mound construction that hints at cosmogonic myth and, perhaps, metaphors of historical experience.

In addition to the more ancient mounds of northeast Louisiana, the Southeast holds evidence for other types of



monumental architecture that predate Poverty Point. Generally consisting of shell, the mounds, ridges, and rings of the South Atlantic and Gulf coast have survived the nineteenth-century bias of being considered natural phenomena, and the twentieth-century bias of being merely accumulated food refuse. As told by Asa Randall, the first mounds in the middle St. Johns River Valley resulted from capping events coincident with the abandonment of linear “villages.” Specialized mortuary facilities went up at some sites, but mounding events appear to have occurred with some regularity, in seemingly rhythmic fashion, at sites with no obvious traces of burial or even habitation. Mounding continued for centuries and a subtradition of conical earthen mounds appeared at about 5,000 years ago, coincident with the influx of foreign items. Then, some five centuries later, mounding took on larger and more formalized significance in Archaic life. At four locales along the river, spaced about 20–30 km apart, linear shell ridges dating to the sixth millennium were incorporated into massive, U-shaped “amphitheaters.” This quick transformation of the landscape coincided with the influx of the region’s first pottery, whose spatial patterning at amphitheaters suggests some manner of dual social organization.

The enigmatic shell rings of the Atlantic and Gulf coasts have long invoked a sense of ceremonial importance to archaeologists with imagination, but recent work on these features by Mike Russo and others is replacing imagination with hard science. Shell rings vary from small, relatively symmetrical affairs to complexes of multiple “rings” with asymmetrical shapes, and massive U-shaped configurations like those of the St. Johns (Russo and Heide 2001). Subsurface testing and geophysical surveys have revealed much about the depositional structure and sequence of rings. Large loads of clean shell in discrete deposits are interpreted as mounding events, most likely coincident with ceremonial feasting. Features indicative of domestic living are present as well and signal, as one might expect, a circular community pattern. However, it does not follow that life in the round necessarily reflects and reproduces egalitarian social structures. Russo (2004) points to regularities in the siting and scaling of mounding episodes to infer social differentiation in the use of formalized spaces. These internal differences are also likely manifested at the regional scale, with certain locales supporting more ceremonial activity than others (Saunders 2004). The degree to which variations such as this can be explained through changes in the availability of shellfish and other resources remains to be determined, but no matter the ecological parameters of establishing and sustaining occupations at rings, the cultural milieu of life in the round appears to have reverberated across much of the Southeast. It almost certainly influenced the developments in the middle St. Johns that Randall summarizes, and it was likely the impetus for circular villages of the middle Savannah (Sassaman et al. 2006).

### Confronting Diversity

Recent work on monuments in the Southeast is converging on the theme that these flashes of brilliance often entailed large-scale demographic and cultural changes, including migrations, coalescence, and ethnogenesis. Likewise, the Archaic record of the Northeast provides ample opportunity for exploring the outcome of ancient cultural encounters. Since the days of William Ritchie, the advanced level of Archaic diversity manifested in typologies and taxonomies has been regarded by some, but certainly not all, as evidence of immigrations from points elsewhere. The Broadpoint expansion, “small-stemmed” intrusions, and pre-Dorset arrivals are among the many “events” that inflected local sequences. The folly of older approaches to interpreting such events—and the fodder for processualist critiques of culture history—was that each of these various “foreign” influences and the indigenes they encountered were imagined to be self-contained, internally homogenous units. In many cases, however, large-scale movements of people were predicated on established social connections that we gloss as “exchange” or “trade.” Brian Robinson considers how this variegated and dynamic cultural regime was registered in changes and continuities in the famed mortuary programs of the Northeast. His is a highly nuanced perspective based on strong chronology and rigorous comparative work (Robinson 2006). Robinson makes a convincing case that when we look past the material properties of certain “grave goods” to consider ritual practices at multiple, interdependent social scales and the symbolic equivalencies of varied materials, we find a thread of cultural continuity (reinvented tradition) in an overall backdrop of change.

In his review of research in the Great Lakes Bill Lovis helps to put things Archaic into balanced perspective. He reminds us that the burial complexes of the Great Lakes region, like those of the Northeast, are “high points” of an otherwise mundane Archaic record. This is more than a caution to curtail the excesses of imaginary minds; rather, it is a reminder that even greater diversity of Archaic experiences resided at the level of everyday living. Likewise, the extent to which “ritual” life or a political economy influenced the quotidian cannot be determined without better data on everyday living. Lovis makes a strong argument for combining traditional cultural-historical pursuits with more rigorous earth and physical sciences, and he showcases some of the recent work that exemplifies the promise of interdisciplinary inquiry. Particularly exciting are efforts to explore portions of the Great Lakes that were available for human settlement before being flooded in the middle Holocene. Besides the obvious need to fill the gap in knowledge about submerged sites, investigating how lake dwellers adjusted to changing littoral conditions would appear to be requisite to understanding how small-scale population adjustments reverberated across the region and affected sociopolitical relations.

### In Small Things Formative

The last two contributions of this special section showcase the two traits that Willey and Phillips deemed most salient to the distinction between their Archaic and Formative stages: a well-established sedentary village life and maize (or manioc) agriculture. On the first count, Willey and Phillips (1958:144) were quick to note that potential exists for complex sociocultural patterns and sedentary living in the absence of agriculture, and they cited California and the Northwest Coast as examples. We can add to that the evidence for settled communities in the mid-Frazer region of British Columbia where pithouse villages appear just after 3,000 year ago and, in some cases, grew to house relatively large coresident groups. The Bridge River site, excavated by Anna Prentiss and colleagues (2008), offers a remarkably detailed record of village establishment, growth, and abandonment. Prentiss documents a peak in occupation at about 1,200 years ago, when a once-singular compound expanded into two adjacent arcs of pithouses. Apparently, this was eventful growth, perhaps instantaneous. Having developed dependence on salmon runs to support this growth, the Bridge River community waned with declining salmon production. Importantly, this was not a pan-regional process, at least not in a synchronic sense. Communities that had come to depend on salmon were most vulnerable to downturns in fish runs, but others, such as those who occupied the Keatley Creek site (Hayden 1996), were not. That the sorts of social alliances that enabled coalescence at Bridge River ultimately determined the allocation of personnel across the region indicates that the effects of environmental changes were exacerbated by regional political economies.

Finally, agricultural economies and the domesticated plants on which they are built long stood sentinel at the divide between Archaic and Formative stages. Recent work in the Southwest shows how facile a distinction this can be. As summarized here by Jonathan Mabry, work in the Tucson Basin and vicinity has produced abundant evidence to show that the transition to farming followed long and varied pathways. None of the familiar dichotomies adequately account for patterned variation among early farming communities. The beginnings of farming resulted from neither migration nor diffusion, but both. Foraging continued through the Early Agricultural Period among communities who dug and maintained irrigation canals, terraced and farmed hillsides, and built food stores. But early farming communities also show marked diversity in their size, social complexity, and settlement permanence, and they co-existed with more "traditional" Late Archaic foragers who spread risk through diverse subsistence strategies. The nature of interaction among communities with varying commitments to farming, including persistent hunter-gatherers, is among the topics on ongoing research.

### Conclusion

Little of what you will read in these articles would have felt at home in the grand narratives of Archaic syntheses written as late as 25 years ago. Recent discoveries and the theorizing to deal with them promises to do more than simply push back the origins of villages, monuments, or agriculture, or to swap Archaic qualities for Formative or Preformative ones. There is an unsurprising attempt on the part of good scientists to fit new observations to existing models before abandoning an entire way of thinking—Kuhn made that clear. But the obligatory period of skepticism and parsimony may have run its course, and the time is ripe for a paradigmatic shift. New ways of thinking about hunter-gatherer society and culture are assured outcomes of sustained empirical work on things Archaic.

Not all the contributors to this special issue will agree with the many assertions I have made here, but I think we would all agree that more cross-fertilization between the archaeologists of "complex" society and hunter-gatherer specialists is sure to be fruitful. Recent work on the ancestral Pueblo and the Cahokians provide conceptual tools and methods for investigating the sorts of historical processes and events (e.g., migration, coalescence, ethnogenesis) Archaic specialists now contemplate regularly. In return, archaeologists of complex society have at their disposal in the Archaic record not merely a foil of evolutionary contrast, but rather a golden opportunity to extend inquiry of culture change over spans of time that crosscut the usual economic and sociopolitical variations.

### References Cited

- Hayden, Brian  
1996 *The Pithouses of Keatley Creek*. Harcourt Brace, Fort Worth, Texas.
- Prentiss, Anna M., Guy Cross, Thomas A. Foor, Dirk Markle, Mathew Hogan, and David S. Clarke  
2008 Evolution of a Late Prehistoric Winter Village on the Interior Plateau of British Columbia: Geophysical Investigations, Radiocarbon Dating, and Spatial Analysis of the Bridge River Site. *American Antiquity* 73:59–81.
- Robinson, Brian S.  
2006 Burial Ritual, Technology, and Cultural Landscape in the far Northeast: 8600–3700 B.P. In *The Archaic of the Far Northeast*, edited by D. Sanger and M. A. P. Renouf, pp. 341–381. University of Maine Press, Orono.
- Russo, Michael  
2004 Measuring Shell Rings for Social Inequality. In *Signs of Power: The Rise of Cultural Complexity in the Southeast*, edited by Jon L. Gibson and Philip J. Carr, pp. 26–70. University of Alabama Press, Tuscaloosa.
- Russo, Michael, and Gregory Heide  
2001 Shell Rings of the Southeast U.S. *Antiquity* 75:491–492.

☞ SASSAMAN, continued on page 12

# POVERTY POINT AND THE ARCHAEOLOGY OF SINGULARITY

Tristram R. Kidder, Anthony L. Ortmann, and Lee J. Arco

*Tristram Kidder is Professor and Chair in the Department of Anthropology at Washington University in St. Louis. Anthony Ortmann is an Assistant Professor in the Department of Geosciences at Murray State University. Lee Arco is a doctoral candidate in the Department of Anthropology at Washington University in St. Louis.*

Some sites are exceptional for their size, particular architecture, or function they played, but some sites are simply unique. Perhaps the best example of a *sui generis* site is Stonehenge; in North America a case in point is the complex of buildings and features at Chaco Canyon. Poverty Point (Figure 1), located in northeast Louisiana, is another one-of-a-kind example. Poverty Point is a massive site set apart because it is the product of a population who relied solely on hunting, fishing, and collecting for their subsistence. Exceptional sites demand explanations that account for their uniqueness. Understanding Poverty Point requires we forego traditional models of hunter-gatherer behavior and concede that subsistence alone is not a suitable measure of how we view the history and organization of this remarkable settlement.

## What Makes Poverty Point Unique?

A suite of radiocarbon dates establishes the chronology of Poverty Point; the site was occupied from roughly 3600–3100 cal years B.P. There are hundreds if not thousands of contemporary or nearly contemporary sites in eastern North America. However, none have the range of characteristics that defines Poverty Point. To take an obvious aspect one only needs to look at the site's size. The core area of Poverty Point is roughly 200 ha. This, however, is only the main occupation. The occupation area extends over slightly more than five km along the front of a low Pleistocene-age terrace overlooking the Mississippi River floodplain. Even if we contain ourselves to the minimal site core, this is more than twice the size of the next largest site in eastern North America in the period ca. 6000–3000 cal B.P. and makes it the second largest site in the East at any time prior to European contact.

Poverty Point is also singular because of its monumental earthen constructions, which are extravagant in the context of North American mound building at any time. There are four mounds within the core of Poverty Point and one each at the southern and northern boundaries of the site area. In addition, the site includes six nested earthen ridges, each estimated to be approximately 1–3 m high and 20–40 m

wide. The total length of the earthen ridges, if laid end-to-end, would be between 18–21 km. Recent work at the site demonstrates the prehistoric occupants undertook a massive program of earth moving that leveled undulating natural ridges and filled eroding gullies. Depending on the calculations used, the total volume of earth moved at Poverty Point amounts to 750,000–1,000,000 m<sup>3</sup>. Cahokia is the only pre-columbian site in the U.S. where more effort was expended on earthworks.

But this exceptionalism may be moot if the earthworks at Poverty Point accumulated over a long time. The normative perception of noncoastal hunter-gatherers in the American Southeast is that they employed seasonal mobility to cope with spatial and temporal resource variability. Furthermore, because food resources were rarely concentrated in these interior settings, group sizes were limited and population nucleation could occur only when and where food was temporarily abundant. Thus, seasonal mobility and low group size is the expected norm. As a consequence, Poverty Point has been conceived as a locus of repeated seasonal occupations by small groups. One variant of this perspective is the site was home to a recurring trade fair that brought together populations from the midcontinent to exchange goods, mates, and information. In these seasonal or recurring occupation scenarios, earthwork construction and mound building is the result of frequent small-scale labor contributions by corporate groups who expressed solidarity within or between their social units by sharing labor. In contrast, Gibson (2000, 2006, 2007) argues that the site was home to a permanent sedentary population who constructed the earthworks over a few generations. Mound building was an egalitarian project that enhanced corporate group identity and served to ritually and spatially set off the community from the outside world.

## Excavations at Mound A

Investigations of Mound A at Poverty Point are changing our perceptions of hunter-gatherer mound building and how this process reflects the structure and organization of the com-



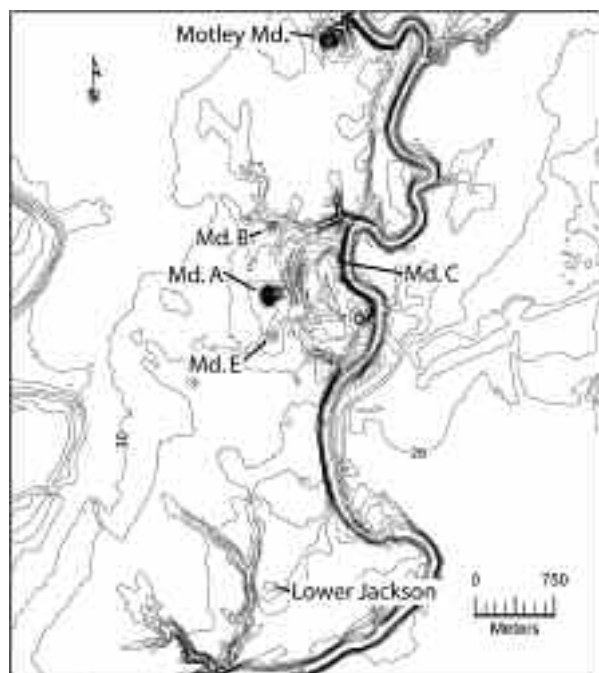


Figure 1. Map of the Poverty Point site locality in northeast Louisiana. This map illustrates the area from Lower Jackson Mound on the south to Motley on the north.

munity. Work at Mound A shows that it was built rapidly in a period of probably less than three months. Furthermore, this research indicates the mound may have been built as a ritualized recapitulation of creation mythology rather than as a platform for perishable structures or as a surface for activities.

Mound A at Poverty Point is the largest earthwork at the site and the second-largest earthen mound in eastern North America. Situated at the western edge of the ridge system, the mound is roughly T-shaped when viewed from above (Figure 2). The western half of the mound consists of an elongated cone rising 22 m above the land surface. Attached to the cone is a flat platform that stands 10 m tall. The cone is joined to the platform by a ramp-like feature. The mound stretches nearly 210 m north to south and approximately the same dimensions east to west. The total volume of the mound is ~238,000 m<sup>3</sup>. The mound has been sporadically investigated but was never the focus of concerted research efforts until we recently placed 89 cores into the mound and excavated a unit to the submound soil on the south side of the platform. Our research was also an opportunity to synthesize the limited research previously undertaken.

Prior to mound construction, the land surface consisted of a low 1–2 m deep depression. As with modern swales, this was

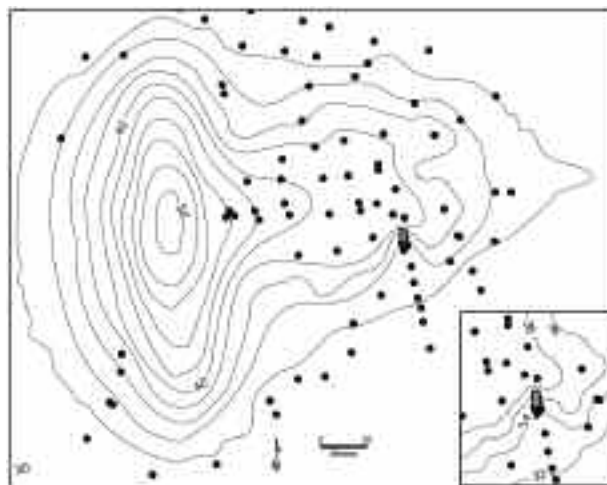


Figure 2. Contour map (contour intervals = 2 m) of Mound A at Poverty Point showing the location of cores excavated from 2001–2006; inset shows the location of the 2005 excavation.

filled with water and heavily vegetated. Analysis of core and excavation data from the submound context indicates it was a natural wetland. Radiocarbon dates show the vegetation in the swale was burned off ca. 3400–3200 cal B.P. The swale was filled with minute pieces of fired earth, carbonized and uncarbonized plant fragments, gastroliths (probably turtle or bird), and natural concretions. There is, however, not a single identifiable human made artifact at the macro- or microscopic scale. Once the vegetation was burned the swale was immediately buried beneath a thin layer of gray to white pure silt. This material, which was purposefully mined from naturally occurring E-horizon contexts, covers the entire swale and underlies the rest of the mound construction. As soon as this initial stage was deposited the rest of the mound was erected using multicolored soils in a continuous process that resulted in completion first of the cone, and then the platform. There was a very brief hiatus after which the ramp section was emplaced.

During excavations and coring we focused on examining the pace of construction. The main stage was built in a single construction effort with no discernable breaks, and it contains no floors, features, or surfaces. Likewise, no evidence is found for erosion, unconformities, or construction pauses marked by soil formation and bioturbation. This stage was created using clean silt taken from borrow areas located at distances between 50 to more than 500 m to the north and west.

Evidence that the mound was built rapidly comes from several sources. The initial stage was deposited over the submound deposits immediately after the vegetation had been burned. Intact uncarbonized roots and other plant parts were



Figure 3. Photographs of the initial mound construction of Mound A. Left: Detail of the sharp contact between the dark clay-rich silt of the swale and the overlying light-colored silt of the initial stage. Right: The initial mound construction sequence with the dark pre-mound sediments overlain by the light initial stage deposits, which are in turn covered by the multi-colored main stage mound fill. Note the presence of dark pre-mound sediments extruded upward by the weight of the overlying mound being rapidly emplaced and squeezing the still wet and plastic pre-construction material upward.

sealed from oxidation and decomposition. The boundary between the underlying dark pre-mound deposit and the initial light-colored mound stage is sharp and there is no bioturbation evident in this stage or in the interface between these deposits (Figure 3). The main stage was loaded over the initial stage so quickly that the underlying pre-mound soils were extruded through the initial stage deposit as the weight of the main mound squeezed the still plastic pre-mound sediments upward. Lacking signs of construction pauses at even the microscopic level, the main stage consists of loess-derived silt, which erodes readily. We do not have any indication in 89 cores or the excavation unit for erosion or weathering-related displacement of soils. Rainfall in northeast Louisiana averages 11.35 cm per month. Late summer and early fall are the driest time but even then there has only been one month with no rainfall in the period monitored by the instrument record. Because there is no probability for two consecutive months without rain, we feel confident the mound had to be erected in a remarkably short period of time. If it had been constructed over a longer span or in multiple stages, we would expect evidence of erosion, bioturbation, soil formation or some sign of a construction pause, none of which was found in our research. Thus, we cannot falsify the hypothesis the mound was built in less than three months.

Mound A was put up quickly, which has significant implications for the social organization of a population dependent on hunting and gathering. The labor effort for building Mound A alone suggests a population larger than any known example from the ethnographic record. Moreover, Mound A is only one of a number of earthworks at the site. While the mounds were not all raised at once, available evidence indicates Mound A was built at the time the ridges were con-

structed. Gibson (2000) suggests the ridges developed rapidly over a few generations. These data indicate Poverty Point witnessed significant population aggregations for brief periods of time and the duration of much of the construction probably was limited to a period of less than one hundred years.

While the ridges were likely surfaces on which people lived, the function of Mound A is unknown. Early work included testing on the summit of the cone and the platform but failed to identify signs of structures, features, or occupation surfaces. Examination of the mound slopes and adjacent fields indicates there is no occupation debris associated with mound-top activities (e.g., feasts, dances, domestic occupations), or if there were activities on the mound summit the inhabitants fastidiously cleaned up afterwards. In fact, if we take the evidence literally, the function of the mound was to bury a natural wetland.

Mound A has always been understood as a ritual feature. It was first seen as an effigy of a bird flying west, and later as a representation of “earth island”—the cosmological center of Poverty Point. Our work emphasizes this ritual aspect of the mound and situates it more clearly in the Native American mythological tradition. The structured and purposeful sequence of construction—the burial of the wet, dark pre-mound depression with light-colored sediments and the rapid construction of the main stage over this can be read as a recapitulation of historical myths of Emergence. An alternate interpretation might suggest it is a rendering of the Earth Diver myth, also present in parts of the historic Southeast. The temporal gap between historical myth and the construction of Mound A renders a specific interpretation disputable. We suggest the building of this earthwork repre-

sents an enactment of a ritualized drama where in a very brief period of time the builders covered the watery chaos of pre-creation and erected a monument symbolizing the triumph of creation over the forces of chaos. This symbolic act surely mirrored political processes and helped forge a social identity for the people living at and around Poverty Point. This story, however, is also written in the entire site plan. Mound A is situated astride an axis that links the Middle Archaic Lower Jackson site—erected fifteen hundred years before Poverty Point's mounds were started—to Mound B, the earliest monument at Poverty Point. In placing Mound A on this axis the builders were engaging an ancestral pattern and tapping into the tradition and power of an even earlier origin story (Clark 2004). Mound A was also erected when the ridges were being built, suggesting an episode when the entire site plan was symbolically and ritually reconfigured.

Theoretical approaches to hunters and gatherers have not given much consideration to the ways such people deployed symbolic and ritual systems to order their lives and to respond to nature and to social groups in the world around them. Poverty Point is a singular site because it represents something that never existed before and has apparently never existed since—a massive hunter-gatherer settlement ordered around a cosmological plan created by a large, sedentary population. The site is more than just spatially extensive or massive in its earthen architecture. Size and mass were only components of a greater significance we are only beginning to perceive. However we understand Poverty Point and its role and function, the emerging understanding of the site proves hunter-gatherers are unambiguously more complex and variable than we have ever imagined. Recently,

Ken Ames (2004) enjoined us to suppose hunter-gatherers were complex in ways not explicable by analogy to living or ethnographic exemplars. Indeed, exploding the stereotype of hunter-gatherer simplicity is one of archaeology's great anthropological contributions. Poverty Point represents variability in hunter-gatherer behavior that cannot be anticipated from the ethnographic record or from the needs of basic subsistence requirements. It is truly like nothing else and with new and ongoing research we are finally presented the opportunity to comprehend that the people who built this remarkable site must be understood by more than just what they ate.

## References Cited

- Ames, Kenneth M.  
2004 Supposing Hunter-Gatherer Variability. *American Antiquity* 69:364–374.
- Clark, John E.  
2004 Surrounding the Sacred: Geometry and Design of Early Mound Groups as Meaning and Function. In *Signs of Power: The Rise of Complexity in the Southeast*, edited by J. L. Gibson and P. J. Carr, pp. 162–213. University of Alabama Press, Tuscaloosa, Alabama.
- Gibson, Jon L.  
2000 *The Ancient Mounds of Poverty Point: Place of Rings*. University Press of Florida, Gainesville.
- 2006 Navel of the Earth: Sedentism at Poverty Point. *World Archaeology* 38:311–329.
- 2007 “Formed from the Earth of That Place”: The Material Side of Community at Poverty Point. *American Antiquity* 72:509–523.

---

SASSAMAN, from page 8 ↻

- Sassaman, Kenneth E., Meggan E. Blessing, and Asa R. Randall  
2006 Stallings Island Revisited: New Evidence for Occupational History, Community Pattern, and Subsistence Technology. *American Antiquity* 71:539–566.
- Saunders, Rebecca  
2004 Spatial Variation in Orange Culture Pottery: Interaction and Function. In *Early Pottery: Technology, Function, Style, and Interaction in the Lower Southeast*, edited by R. Saunders and C. T. Hays, pp. 40–62. University of Alabama Press, Tuscaloosa.
- Willey, Gordon R.  
1966 *An Introduction to American Archaeology. Volume 1: North*

- and Middle America*. Prentice-Hall, Englewood Cliffs, New Jersey.
- Willey, Gordon R., and Philip Phillips  
1958 *Method and Theory in American Archaeology*. University of Chicago Press, Chicago.



# ARCHAIC SHELL MOUNDS OF THE ST. JOHNS RIVER, FLORIDA

Asa R. Randall

*Asa Randall is a doctoral candidate in Anthropology at the University of Florida.*

The hallmark of Middle to Late Holocene occupation of the St. Johns River Valley in Northeast Florida are mounds composed primarily of freshwater shellfish remains. Our traditional understanding of the origins and significance of these places can be traced back to the morning of February 8, 1871, which Jeffries Wyman spent examining the eroded profile of such a mound. As the first curator of Harvard's Peabody Museum, Wyman's goal was to determine whether human or natural agents were responsible for these geomorphologically anomalous, yet regionally widespread, topographic features. The complex he examined on this particular morning was arguably the largest on the river, consisting of three shell ridges in a U-shape, each ridge rising upwards of 8 m above the floodplain and extending over 300 m inland or along the waterfront. He had observed similar facades at scores of isolated linear or crescent-shaped shell ridges, typically 150 m long and 6 m high, throughout the middle and upper reaches of the river (Figure 1). No doubt struck by the scale of this particular facade, Wyman retired that afternoon to an orange grove and contemplated the apparent contradiction between the structure and overwhelming size of the shell mounds on one hand, and their apparently mundane content (i.e., shellfish and other materials) on the other. His resolution? Although the mounds were indeed anthropogenic *and* monumental in scale, they solely represented accumulated refuse (Wyman 1875:11).

Over one hundred years later, we certainly know more empirically than Wyman. Basal deposits at mounds signal the emergence of intensive freshwater shellfishing around 7300 cal B.P. by hunter-gatherer communities at the onset of the Preceramic Archaic Mount Taylor period (ca. 7300–4700 cal B.P.) (Wheeler et al. 2000), while the appearance of fiber-tempered pottery registers occupation during the Ceramic Archaic Orange period (4700–3600 cal B.P.). Finally, superimposed upon many shell mounds are the output of post-Archaic St. Johns tradition horticulturalists (3600–500 cal B.P.). Yet Wyman and his contemporaries (e.g., C.B. Moore [1999]) still shape the contours of regional archaeological investigations. Their descriptions and excavated collections remain irreplaceable documentation of places that have mostly been destroyed by twentieth-century mining opera-

tions. Moreover, Wyman's resolution to the shell mound contradiction has been tacitly accepted and welded to a model of progressive social evolution (e.g., Goggin 1952; Milanich 1994). As a consequence, the scale, distribution, composition, and development of Archaic shell mounds registers little more than long-term demographic processes and unreflexive refuse deposition by socially simple hunter-gatherers. However, a new round of investigation has identified numerous practices and institutions unanticipated by evolutionary models, and these demonstrate that shell mounds were truly monumental in scale and significance. As I briefly review here, an examination of how shell mounds emerged as a long-term historical process reveals that Archaic communities actively reproduced and transformed their own histories through daily and commemorative acts at sacred and mundane places. Such acts are evident as depositional practices that variously referenced, altered, politicized, or avoided past places on the landscape in the context of complex social interactions and dynamic ecologies.

The incipient exploitation of shellfish at the onset of the Mount Taylor period 7,000 years ago is traditionally modeled as a response to the establishment of productive wetlands and near-modern hydrological regimes (Miller 1998:65). In contrast to their final configurations and significance, the origins of shell mounds are decidedly mundane and unimposing in character. However, the particulars of these new practices indicate that Archaic communities created new social and ancestral geographies along St. Johns through the construction of structured settlements and integrative mortuaries. Early settlements have proven difficult to detail because many were either inundated or were obscured by meters of later deposition (Wheeler et al. 2000). However, the Hontoon Dead Creek Complex (8VO214/215) provides a rare opportunity to delimit the structure and organizational principles of such localities. Today, the complex is located some 200 m from channeled water, and is composed of a large Archaic mound (Figure 1, right), a now-inundated 7,000-year-old shell midden, and a low-lying terrestrial shell midden to the south of the mound. Excavation within the mound demonstrated that it is principally a non-habitation Mount Taylor platform that postdates early settlement (Randall and

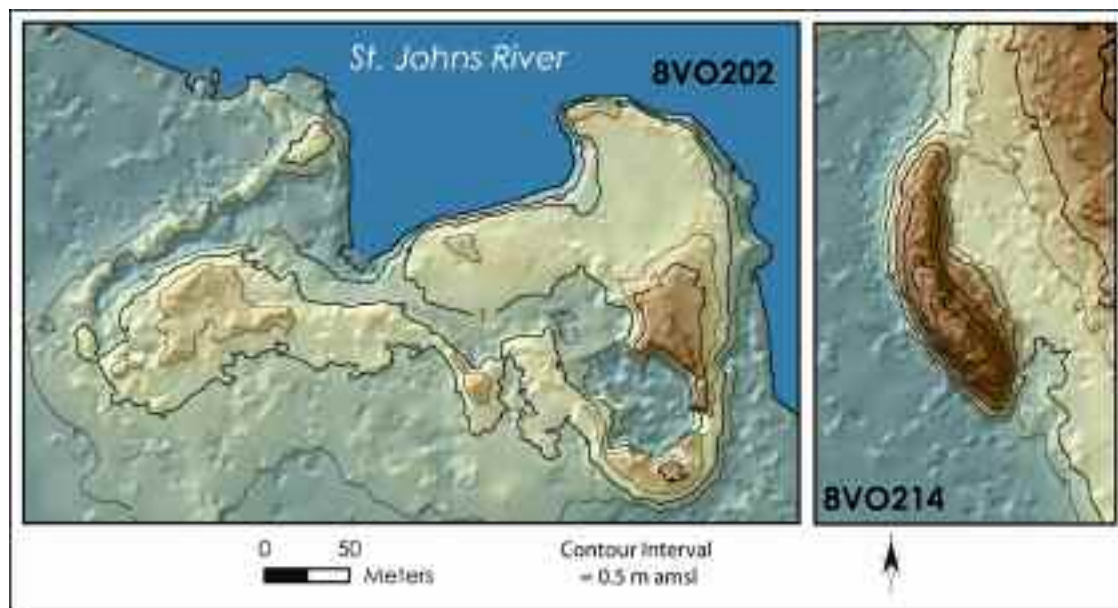


Figure 1. Examples of shell mounds in the St. Johns River Valley: Hontoon Island North (8VO202), a now-mined multi-mound complex, and the intact Hontoon Dead Creek Mound (8VO214).

Sassaman 2005). Topographic mapping, close-interval coring, and test unit excavations within the shell midden to the south documented five regularly spaced shell nodes oriented in a linear array along the terrace edge (Randall 2007). These elongated nodes average roughly 20 m long, 10 m wide, and 50 cm high. The two heaps closest to the mound date between 7300 and 6400 cal B.P., and are characterized by multiple crushed shell surfaces. Whether the nodes were the foundations of houses or communal middens is unknown, but the depositional sequence within the shell nodes demonstrates numerous periods of occupation. Reconstruction of the site has established that 7,000 years ago communities created and reproduced linear settlements characterized by multiple domestic middens, some possibly cotemporaneous.

As early as a century after the first settlements were established, some preexisting places were transformed into mortuary mounds in a process that both referenced earlier settlements and integrated diverse regional communities. The presence of mortuaries at the base of mounds throughout the region was established by Moore (1999) in the late nineteenth century. However, it was only after Aten (1999) reconstructed Ripley Bullen's salvage excavation of the Harris Creek mound (8VO24) on Tick Island that the details and antiquity of this practice became apparent. Excavations in the basal portion of the mound exposed by shell mining identified at least 175 individuals, although many more were likely removed prior to observation. As detailed by Aten, these interments were emplaced into two successive mortu-

aries dating sometime between 7,000 and 5,600 years ago. The foundation of the mortuary was a low-lying shell ridge, the equivalent of a domestic midden identified at the Hontoon Dead Creek complex, which was capped with mounded clean shell. Over the course of several generations, individual and multiple interments were then emplaced into deposits of allochthonous white sand or shell upon this ridge or in grave pits. Contrary to the widespread notion that monuments were constructed for territorial purposes, recent skeletal stable isotope analysis by Quinn and colleagues (2008) indicates that those individuals buried within the mound originated throughout the St. Johns Valley, and in some cases came from communities as far away as southern Florida and even Virginia or Tennessee. These points of origin may be represented in differential burial treatment as well (Tucker and Krigbaum 2007). The temporality and politics of interment suggest that diverse identities were incorporated through commemorative events at mounds that reproduced the spatiality of earlier settlements.

Sometime after 6,000 years ago, Archaic communities reconfigured mounds and mortuaries into three overlapping and mutually constitutive spheres of practice. This transformation occurs in the context of river stage fluctuation as well as increasing scales of social interaction in which objects were imported from throughout the lower Southeastern United States (McGee and Wheeler 1994; Wheeler et al. 2000). Some places remained loci of daily practice. At the Silver Glen Run Complex (8LA1), an early settlement was capped by tan sand,

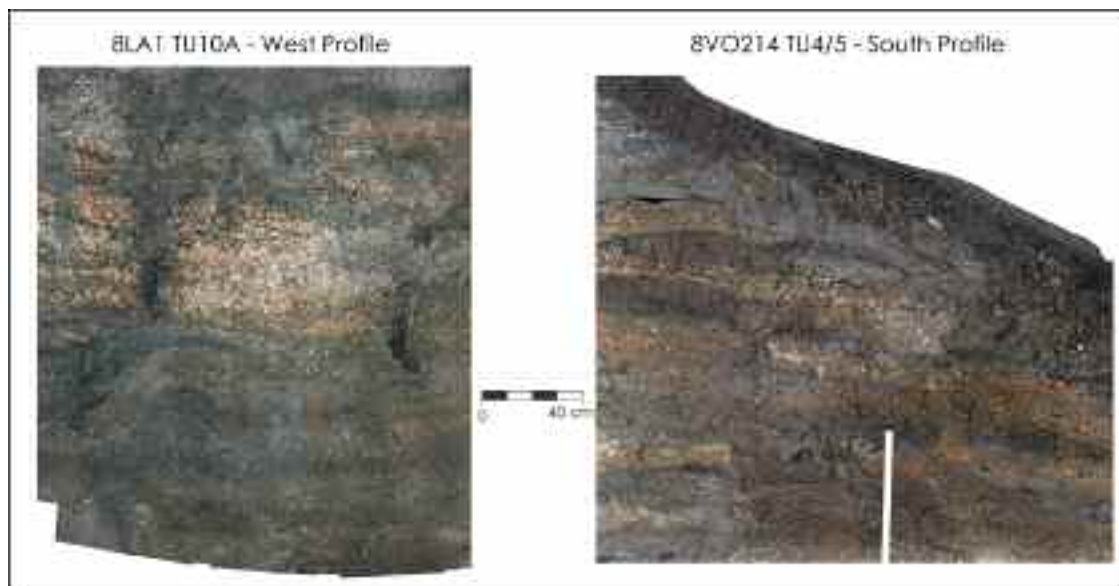


Figure 2. Comparison of Mount Taylor domestic depositional events at the shell ridge at Silver Glen Run (left) and non-habitation deposition at the Hontoon Dead Creek Mound (right). Profiles are composites of multiple images.

upon which new household clusters were emplaced (Figure 2, left). These events are evident as crushed shell surfaces that appear to represent house floors, while refuse including shellfish, vertebrate fauna, tool debris, and paleofeces register ongoing daily affairs. We currently do not know how these new settlements were structured, but based on the organization of the mound it appears they were similarly oriented as a linear array. Other similarly configured mounds, however, were the locus of routinized deposition without evidence for daily habitation. At the Hontoon Dead Creek Mound, Archaic communities used clean shell and materials mined from a preexisting shell midden to create a platform mound (Randall and Sassaman 2005). This platform was repeatedly renewed through the alternating deposition of clean shell and burned shell (Figure 2, right). Such practices have analogues in settlements, but apparently did not include the deposition of diverse mundane assemblages. Arguably, the platforms were created through commemorative events that referenced the structure and organization of daily practice. Communities also constructed burial mounds of sand and shell in several locations within the St. Johns valley and on the associated Atlantic Coast. Endonino's (2008) ongoing investigation of the Thornhill Lake Complex (8VO58-60) is revealing key details on these transformations. This complex is composed of a low-lying shell ridge upon which two conical sand and shell mounds were constructed sometime between 5600–4500 cal B.P. The mounds were grafted upon a preexisting shell midden settlement, a practice seen at other sand mound complexes in the region. Linking such complexes are nonlocal objects such as bannerstones from South Carolina and Georgia that were interred

either in caches or as grave goods. While the precise chronologies and temporalities of mortuary monument construction are being worked out, it is evident that such places provided a space for recognizing and subverting increasingly diverse and potentially dissonant social histories.

The alliances that were maintained through bannerstone exchange likely facilitated the introduction of either potters or pottery production from coastal communities beginning 4,600 years ago at the onset of the Orange period (Sassaman 2004). The appearance of Orange fiber-tempered pottery was not simply an addition to traditional subsistence technologies, but instead represents a “new world order” in the organization of regional ritual and domestic practice (Randall and Sassaman 2007). New patterns of settlement and monumental construction, in which sacred and secular places were spatially segregated, emerged from the coalescence of once-separated coastal and interior populations. Circular villages, apparently modeled on coastal spatial models and characterized by plain pottery production, are present throughout the valley. Along the St. Johns, such places were frequently emplaced adjacent to, but notably not on top of, preexisting Mount Taylor platform mounds. In contrast to the widespread distribution of plain wares, abundant assemblages of decorated and technologically distinct vessels are restricted to only four locations on the river, spaced roughly 20–30 km apart. While the organization of all these locations is poorly known, recent investigations at the Silver Glen Complex by the University of Florida Archaeological Field School suggests that they were large U-shaped mound complexes (Figure 3). It was this very place that inspired Jeffries



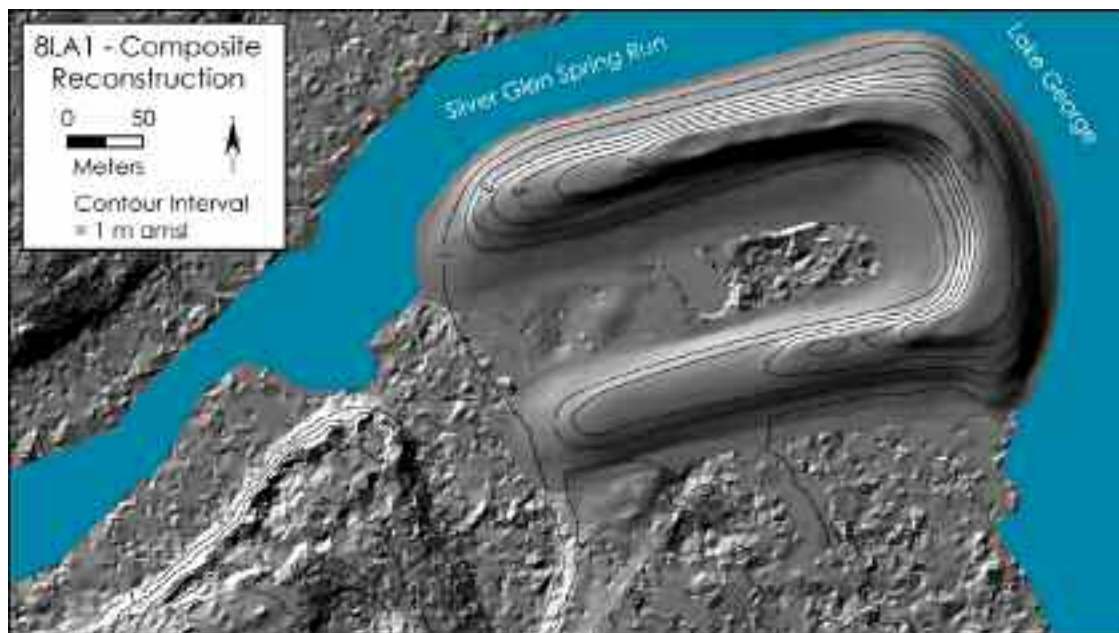


Figure 3. Reconstructed Orange period "amphitheater" at Silver Glen Run, based on Wyman's description and recent archaeological investigations. Note the now-mined Mount Taylor shell ridge to the southwest.

Wyman to ponder the significance of shell mounds. These Orange-period monuments recall the spatial organization of Orange-period coastal shell rings, but on a much grander scale. Current results from excavations in the remnants of this now-mined locality indicate that the U-shaped construction was built on top of a Mount Taylor shell ridge that may have contained a dedicated mortuary mound, and sited across from an extant Mount Taylor settlement. The abundance of decorated Orange vessels in near-shore contexts suggests that the deposition of vessels into the water was part of a larger commemorative event. Other details emerging from investigations hint at differences in pottery production between ridges. Continued testing will address the chronology and organization of these different practices. Regardless, the new traditions that emerged during the Orange period variously drew from coastal and interior worldviews in a way that referenced a landscape already sedimented with enduring significance.

Florida's Archaic investigations have come full circle. Like Wyman, we are still pursuing the origins and significance of shell mounds and the practices through which they were produced. However, Wyman's pragmatic rationality is being replaced with a recognition that diverse hunter-gatherer communities and social histories were created and transformed through inscriptive practices at shell mounds. Contemporary research is just now providing the context to investigate such processes in depth through detailed site histories and innovative analyses. It is an exciting time to be

involved in this research, which has implications beyond Florida. As demonstrated by other contributions in this issue, the archaeological record of hunter-gatherers (Archaic or not) is relevant to audiences beyond specialists. Processes of social memory, ethnogenesis, and monumental construction are not restricted to non-hunter-gatherers. The culture-histories encased in the St. Johns provide yet another reason to rethink the long-reproduced structural linkage between subsistence and social process that has obscured hunter-gatherer histories.

### References Cited

- Aten, Lawrence E.  
1999 Middle Archaic Ceremonialism at Tick Island, Florida: Ripley P. Bullen's 1961 Excavations at the Harris Creek Site. *The Florida Anthropologist* 52(3):131–200.
- Endonino, Jon C.  
2008 The Thornhill Lake Archaeological Research Project: Mount Taylor Mortuary Mounds and Monumental Architecture in the St. Johns River Valley. *Florida Archaeological Council Newsletter* 70, March.
- Goggin, John M.  
1952 *Space and Time Perspectives in Northern St. Johns Archaeology, Florida*. Yale University Publications in Anthropology 47. New Haven.
- McGee, Ray M., and Ryan J. Wheeler  
1994 Stratigraphic Excavations at Groves' Orange Midden, Lake Monroe, Volusia County, Florida: Methodology and Results. *The Florida Anthropologist* 47(4):333–349.

- Milanich, Jerald T  
1994 *Archaeology of Precolumbian Florida*. University Press of Florida, Gainesville.
- Miller, James J.  
1998 *An Environmental History of Northeast Florida*. University Press of Florida, Gainesville.
- Moore, Clarence B.  
1999 *The East Florida Expeditions of Clarence Bloomfield Moore*. University of Alabama Press, Tuscaloosa.
- Quinn, Rhonda L., Bryan D. Tucker, and John Krigbaum  
2008 Diet and Mobility in Middle Archaic Florida: Stable Isotopic and Faunal Data from the Harris Creek Archaeological Site (8vo24), Tick Island. *Journal of Archaeological Science* 35(8):2346–2356.
- Randall, Asa R.  
2007 *St. Johns Archaeological Field School 2005: Hontoon Island State Park*. Technical Report 7. Laboratory of Southeastern Archaeology, Department of Anthropology, University of Florida.
- Randall, Asa R., and Kenneth E. Sassaman  
2005 *St. Johns Archaeological Field School 2003–2004: Hontoon Island State Park*. Technical Report 6. Laboratory of Southeastern Archaeology, Department of Anthropology, University of Florida, Gainesville.
- 2007 (E)Mergent Complexities During the Archaic in Northeast Florida. Paper presented at the 72nd Annual Meeting of the Society for American Archaeology, Austin, Texas.
- Sassaman, Kenneth E.  
2004 Common Origins and Divergent Histories in the Early Pottery Traditions of the American Southeast. In *Early Pottery: Technology, Function, Style and Interaction in the Lower Southeast*, edited by R. Saunders and C. T. Hays, pp. 23–39. The University of Alabama Press, Tuscaloosa.
- Tucker, Bryan, and John Krigbaum  
2007 Isotopic Investigations of Mortuary Variability at Harris Creek-Tick Island. Paper presented at the 72nd Annual Meeting of the Society for American Archaeology, Austin, Texas.
- Wheeler, Ryan J., Christine L. Newman, and Ray M. McGee  
2000 A New Look at the Mount Taylor and Bluffton Sites, Volusia County, with an Outline of the Mount Taylor Culture. *Florida Anthropologist* 53(2–3):133–157.
- Wyman, Jeffries  
1875 Fresh-Water Shell Mounds of the St. John's River, Florida. *Peabody Academy of Science Memoir* 4.

New Publications • Center for Archaeological Investigations • New Publications




## Religion, Archaeology, and the Material World

*Edited by Lars Fogelin*

In part a methodological primer on the archaeology of religion, this volume explores the use of material remains to construct informed understandings of religion and ritual. The authors of the eighteen chapters use multiple perspectives to examine evidence from widely divergent geographic and temporal contexts. • **Occasional Paper No. 36**

---

## The Durable House: House Society Models in Archaeology

*Edited by Robin A. Beck Jr.*

A timely, comparative collection of insights on the social house highlighting complex Old World and American societies; 22 chapters foreground materiality and demonstrate archaeology's unique contribution to anthropological understandings of Levi-Strauss's concept. • **Occasional Paper No. 35**



**Southern**  
Illinois University  
Carbondale

Center for Archaeological Investigations  
Southern Illinois University Carbondale  
Faner 3479, Mail Code 4527  
Carbondale, Illinois 62901  
(618) 453-5031

**Coming Next Fall:**

**The Archaeology of Anthropogenic Environments**

*Edited by Rebecca M. Dean*

To order these and other CAI books, visit <http://www.siu.edu/~cai>

# LATE ARCHAIC SHELL RINGS AND SOCIETY IN THE SOUTHEAST U.S.

Michael Russo

*Michael Russo is an archaeologist for the National Park Service*

Late Archaic (5000–3000 B.P.) shell rings are large (50–250 m) circular to U-shaped pilings of oyster shell, ranging from less than a meter to nearly 6 meters high, found primarily along the coasts of South Carolina, Georgia, and Florida. Based on differences in their geographical distributions, shapes, sizes, and artifact assemblages, eight separate shell ring-building culture areas have been identified along the southeast U.S. coasts (Russo 2006:29–36). All Late Archaic coastal societies were egalitarian fisher/hunters. But the organizational requirements for large-scale public architecture reflected in shell rings suggests that ring builders were more complex than contemporary hunter-gatherer societies (Russo 2004; Saunders 2004).

The large sizes and striking shapes of shell rings have long fed inquiries into their possible functions. Dominating most interpretations is the view that shell rings resulted from discarded food remains attendant with villages that sat atop or within the shell ring walls (Russo 1991; Thompson 2006; Trinkley 1985; Waring and Larson 1968). However, on a practical level and with the possible exception of a few of the larger rings, the idea that the rings were actual foundations for dwellings is untenable. Most rings are simply too narrow and too steep to have been places of daily living and certainly lack direct evidence of dwellings. Typically villagers moved out as shell was piled higher. The presence of dwelling posts, pit features, hearths, and organically stained midden soils have, indeed, been found at rings, but typically such features lie below the ring. These data suggest that before the shell rings were constructed, their builders lived at the same locations in similarly shaped circular villages that prefigure the shape of the shell ring that followed.

In many cases, ring villages seem to have been abandoned before shell-ring construction began for reasons related to social fissioning. In the case of multiple-ring complexes, radiocarbon dates suggest that some ring villages were established nearby as the original ring village was transformed into a shell ring (Heide and Russo 2003). At Fig Island, radiocarbon dates point to sequential shell-ring construction spaced a few decades apart (Saunders 2002:115). But other

shell rings seem not to have been constructed atop villages at all, suggesting that fissioning was not the only *raison d'être* for shell rings. The cosmological views that placed social members in relation to each other in rings at villages with central plazas apparently informed other aspects of life, including the construction of ring monuments outside of village settings.

While ring-builders' *imago mundi* may have guided both their village and shell ring layouts, the form of each differed dramatically. While village disposal features consisted largely of belowground pits and thin scatters of discard in midden soils, shell rings were conspicuously constructed aboveground. They attained their iconic mounded-ring shape through contiguous pilings of purposefully placed shell with no evidence of in situ living activities or midden soils. Shell rings were features to behold. Built to endure, they defined the plaza as communal and ceremonial space, presenting it to supernature, the greater world, and posterity. Shell rings were monuments (Russo 2004).

## Modeling Shell-Ring Social Organization

Ethnographically, circular villages are well documented throughout the world, and concepts used to define village layout and organization are varied and overlapping. These include models related to kin (households, lineages, clans, moieties) and non-kin groupings (sodalities, neighborhoods); rank (headman, commoners); architecture (plaza, communal structures, dwellings); social space (relative proximities among community members); and symbology (cardinal or cosmological orientations). In their efforts to understand ring settlements, archeologists are supported by models that link the spatial patterning of villages to conscious, planned efforts to reify upon the landscape community-held social and cosmological ordering. Dwellings are not haphazardly plopped on the ground. Vacant spaces do not randomly appear. Architectural elements of villages are placed in consideration of other inhabited spaces, the social positions of community members, and, in many cases, a culture's cosmological template of the universe. Village layouts reflect



cognitive maps that serve to reinforce order in the real world through the alignment of houses, plazas, and other architectural elements at proscribed spacing.

Ring villages are typically laid out horizontally in “concentric” patterns. The innermost, and often the largest architectural feature is the plaza, defined by a well-maintained, relatively debris-free landscape. Surrounding the plaza lies the inner ring where the domestic aspects of the village are found, typically including dwellings, cooking facilities and, to varying extents, debris. In other cases, the bulk of debris may be deposited in an outermost ring separated from the domestic area. The overall plan of ring villages extends from inner- to outermost, from public to private, from the worldly to the mundane. The village plaza is where most public communal activities occur including ceremonies that may be attended by greater community as well as noncommunity members; the domestic ring surrounding it is a zone of family activities in front of dwellings and within; and the outermost village boundary is a space of mundanity (e.g., defecation, refuse disposal). In some cases, a wall (e.g., palisade) may serve as the outermost ring of a ring village. On a practical level, the wall serves as a defense. But symbolically, it defines the limits of the planned and ordered world of the ring village and separates that world from others.

Concentric models describe a wide range of ring formations from the least complex societies, such as the !Kung, to chiefdom-level societies, such as those found among the Trobriand Islanders. But it takes a complementary circumferential model to describe more complexly organized ringed villages. Within the plaza or the domestic ring of a village, social relationships are commonly reified at defined locations reserved for specific sodalities, kin, or status groups. Among villages of the same culture, such social groupings may be formalized through cardinal, geographic, or cosmological orientation. Particularly among tribal and chiefly societies, ring villages are commonly divided between diametrically opposed kin groups on north/south, east/west, or other cosmologically guided axes. The degree such segmentation may reach within a ring village is, theoretically, unlimited. Even in small villages, the placement of related and opposing groups is known to exceed a dozen (e.g., Levi-Strauss 1963; Means 2007:45–49; Tuzin 2001).

Archeologically, segmentary social groupings may be identified by the differential distributions or localization of artifacts and features such as dwellings, burials, and house middens. Proximal spacing of dwellings and other architecture, as well as artifact clustering may reflect related social groups (e.g., Saunders 1986). Unequal distributions of valued artifacts and other materials may be used to identify more economically successful groups who, by extension, held higher status, rank, or authority.

### Shell-Ring Social Segmentation

The practical application of ring-village models to Late Archaic shell rings is problematic due to the archeological characteristics of shell rings. Although shell-ring builders were among the first in North America to adopt pottery, vessel types and designs were limited. Typically, sherds of serving bowls shared the same simple linear and punctated motifs throughout the ring, with no apparent clustering of types. This suggests that pottery within the shell ring is not a good marker of social distinction. However, more decorated wares and serving bowls present at shell rings suggest that shell rings served special functions distinct from more quotidian sites (Russo et al. 2002; Saunders 2004). All other kinds of artifacts are considerably rarer, including carved bone pins, lithic flakes, lithic points, formal shell tools, and the occasional exotic stone fragment, none of which to date have occurred in frequencies sufficient to identify patterns of distribution (Russo 2006).

In situ burials are not present at shell rings, nor, in fact, are they commonly found at any contemporary site type (Russo 2006). This has deprived researchers of perhaps the best tool to identify status—burial furniture. While dwellings and circumferential groupings of dwellings can also be useful indicators of status and other social relations, only one shell ring has yielded remains of house structures (Russo 1991). This has resulted in hearths (also rare) or individual deposits of shells (i.e., house middens) serving as proxies for houses in the villages built prior to shell rings (Russo 1991; Thompson 2006). Because shell-ring builders deposited shell by running all piles together and infilling the gaps to form a contiguous ring, identifying individual house middens as reflections of household economies is not possible. In the end, it is particularly difficult applying modeled ring-village features to shell rings, in part, because the depth and character of the shell precludes efficient and sufficient large-scale excavations of these features. While ring models are most useful when data from large-scale excavation of entire villages has been undertaken (e.g., Means 2006), no shell ring has ever been explored to such a degree.

Despite these shortcomings, shell rings have revealed another material uniquely conducive to spatial and cultural analyses—shell. I have noted (Russo 2004) that shell rings have been misinterpreted as idealized circles reflecting the cognitive map of idealized egalitarian societies where all members are equally distanced, spaced, and ranked. However, even the most simply organized societies who view their ideal settlement as circles find it difficult to place those ideal layouts on the landscape given natural and cultural constraints (Yellen 1977:89). With Late Archaic shell rings, modern mapping has shown a high degree of asymmetry in shell distribution. Typically, the greatest volume is centered on one side of the ring directly opposite an opening or the low-

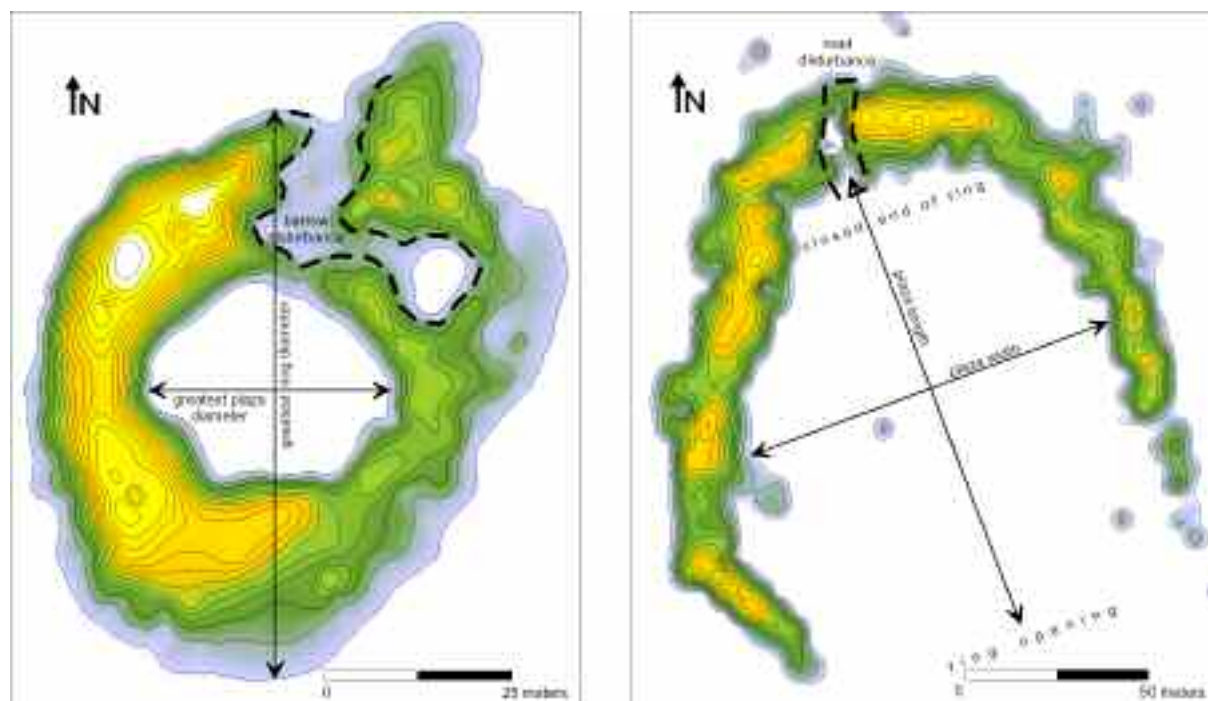


Figure 1. Representative circular (Sewee, shell thickness in 20 cm intervals) and U-shaped (Guana, shell thickness in 10 cm intervals) shell ring features and metrics.

est wall of the ring. This pattern suggests that these rings were dualistic constructions with the high and low (e.g., opening) points serving as the axes dividing the ring into diametric halves. The high point suggests a centralized, literally elevated position midway between the opposing segments (Figure 1).

Diametric social patterns are also observable in the distribution of shell in U-shaped rings. Here two social groupings of households and shell-ring builders constructed the opposite arms of the U, with the communal plaza between. Connecting the arms at the closed end of the U are pilings that represent the tallest or greatest volume of shell in the ring opposite its opening (Figure 1). This reflects greater material accumulation in that area of the ring and represents a position of power commonly found in U-shaped settlements (Grøn 1991).

At other rings, such as the multiple-ring complex at Rollins, a hexagon made up of equal-length shell pilings and an opening surrounds a central plaza. Attached or adjacent to each of the segments are smaller shell rings, each with its own plaza. This suggests a highly segmentary society in which the public open spaces of the smaller plazas are physically separated from the view of other community members

by shell ring walls. The large main plaza may have been a center of ceremonial activities for all members of the greater community, but smaller plazas held public ceremonies that were restricted to smaller subsets of that community (Figure 2). A similar hexagon pattern is found at the Fig Island 2 shell ring, suggesting that an *imago mundi* that divided the social and cosmological worlds into multiple opposing segments may have been a recurring ordering scheme among certain ring builders (Figure 3). Such a multi-segmented village pattern is reminiscent of South American tribes that positioned moieties on opposing sides of the ring villages, with each side further divided into clan segments (Levi Strauss 1963).

### Shell Rings and Social Status and Ranking

While the diametric and segmentary nature of shell rings, apparent in their shapes, suggests status distinction among sections of shell-ring societies, greater evidence of differential status may be found at some of the largest ring sites. As is indicated by surface topographies at all U-shaped rings (Russo 2004), the two arms, while generally equal in length, are not equal in volume of shell. At Guana, the western arm contains far more oysters and clams and greater quantities of ceramics (Russo et al. 2002). The clams from all points test-

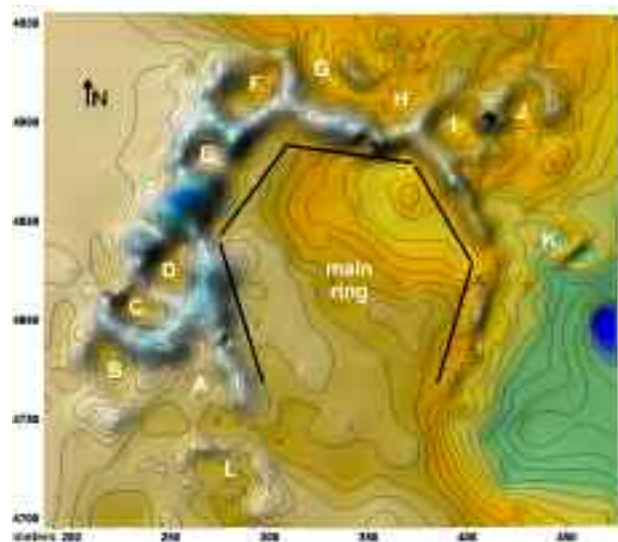


Figure 2. Rollins shell ring complex, surface topography in 10 cm intervals, axes = meters.

ed along the western arm are larger than those found along diametric points along the eastern arm. As is the case at all shell rings, no pattern of higher status, as indicated by exotic or other special artifacts, is apparent within each arm. But greater economic success in the western arm is reflected in the quantity of food resources and pottery and in the individual sizes of clams. Such success in tribal societies may equate with greater status.

The Fig Island shell ring complex has three separate rings, the largest of which stood 6 m high and contained over 22,000 m<sup>3</sup> of oyster shell (Figure 3). The top of the largest ring was broad and flattened, capable of supporting dwellings or large numbers of people. Attached to it was a shell ramp leading to the top of the ring, two smaller rings with their separate plazas, two concentric rings, a 5 m-tall platformed shell mound covering a sand mound, and an elevated shell causeway connecting the mound to the ring. At the Rollins shell ring, at least 12 smaller rings are attached or adjacent to a monumentally sized 250 m ring with a large central plaza. At Horr's Island a large ring is accompanied by at least three ceremonial mounds with overlying shell deposits covering central sand mound cores. While these features alone cannot equate to ranked social organization, together they suggest that some members of the larger ring communities were separated from others by ring walls, by locations atop elevated mounds and rings, by limited access to monumental features through narrow ramps and causeways, and possibly by burial within mounds. These large-scale architecture features were designed to divide, separate, and elevate above others physical positions within the settlements. No doubt this segmentation was the reflection and

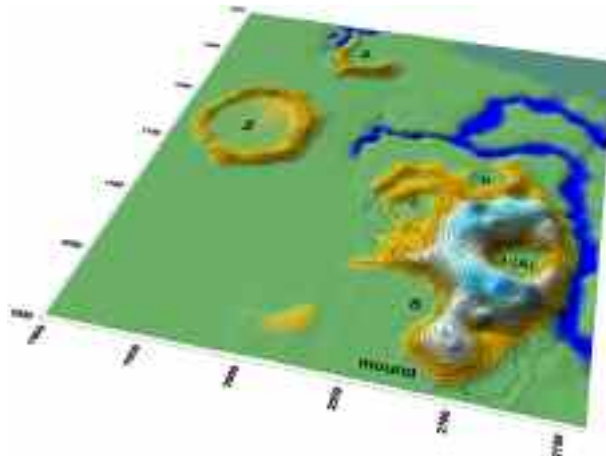


Figure 3. Fig Island ring complex (rings 1–3 and A–D). Contour intervals = 40 cm shell thickness; color = surface topography; axes = meters.

reinforcement of the social segmentation that was the stuff of daily life at shell-ring societies.

## References Cited

- Grøn, Ole  
 1991 A Method for Reconstruction of Social Structure in Prehistoric Societies and Examples of Practical Application. In *Social Space: Human Spatial Behavior in Dwellings and Settlements, Proceedings of an Interdisciplinary Conference*, edited by Ole Grøn, Ericka Egelestad, and Inge Lindblom, pp. 100–117. Odense University Press, Odense, Denmark.
- Heide, Gregory and Michael Russo  
 2003 *Investigations of the Coosaw Island Shell Ring Complex (38Bu1866)*. Submitted to the South Carolina Department of Natural Resources, Heritage Trust Program, Columbia, by the National Park Service, Southeast Archeological Center, Tallahassee.
- Lévi-Strauss, Claude  
 1963 *Structural Anthropology*. Basic Books, New York.
- Means, Bernard K.  
 2007 *Circular Villages of the Monongahela Tradition*. University of Alabama Press, Tuscaloosa.
- Moore, Clarence B.  
 1897 Certain Aboriginal Mounds of the Georgia Coast. *Journal of the Academy of Natural Sciences of Philadelphia* 2:71–73.
- Russo, Michael  
 1991 *Archaic Sedentism on the Florida Coast: a Case Study from Horr's Island*. Ph.D. Dissertation, University of Florida, Gainesville.
- 2004 Measuring Shell Rings for Social Inequality. In *Signs of Power: the Rise of Cultural Complexity in the Southeast*, edited by Jon L. Gibson and Philip J. Carr, pp. 26–70. University of Alabama Press, Tuscaloosa.
- 2006 *Archaic Shell Rings of the Southeast U.S.* National Historic



## THE NEW ARCHAIC

Landmark, National Register of Historic Places, Historic Context Study. Washington D.C.

Russo, Michael, Gregory Heide, and Vicki Rolland

- 2002 *The Guana Shell Ring*. Submitted to the Florida Department of State, Division of Historical Resources, Tallahassee by the Northeast Florida Anthropological Society, Jacksonville.

Saunders, Rebecca

- 1986 *Attribute Variability in Late Swift Creek Phase Ceramics from King's Bay, Georgia*. M.A. thesis, University of Florida, Gainesville.

- 2002 Field Excavations: Methods and Results. In *The Fig Island Ring Complex (38Ch42): Coastal Adaptations and the Question of Ring Function in the Late Archaic*, edited by Rebecca Saunders and Michael Russo, pp. 98–140. South Carolina Department of Archives and History (45-01-16441), Columbia.

- 2004 The Stratigraphic Sequence at Rollins Shell Ring: Implications for Ring Function. *The Florida Anthropologist* 57 (4):249–270.

Thompson, Victor D.

- 2006 *Questioning Complexity: The Prehistoric Hunter-Gatherers of*

*Sapelo Island, Georgia*. Ph.D. dissertation, University of Kentucky, Lexington.

Trinkley, Michael B.

- 1985 The Form and Function of South Carolina's Early Woodland Ring Middens. In *Structure and Process in Southeastern Archaeology*, edited by Roy S. Dickens, Jr. and H. Trawick Ward, pp. 102–118. University of Alabama Press, Tuscaloosa.

Tuzin, Donald

- 2001 *Social Complexity in the Making: A Case Study Among the Arapesh of New Guinea*. Routledge, New York.

Waring, Antonio J., Jr., and Lewis H. Larson

- 1968 The Shell Ring on Sapelo Island. In *The Waring Papers: The Collected Works of Antonio J. Waring, Jr.*, edited by Stephen Williams, pp. 263–278. Papers of the Peabody Museum of Archaeology and Ethnology 58, Harvard University, Cambridge.

Yellen, John

- 1977 *Archaeological Approaches to the Present*. Academic Press, New York.

## Geophysical Instruments from GSSI

EM Conductivity  
Profiler EMP-400™

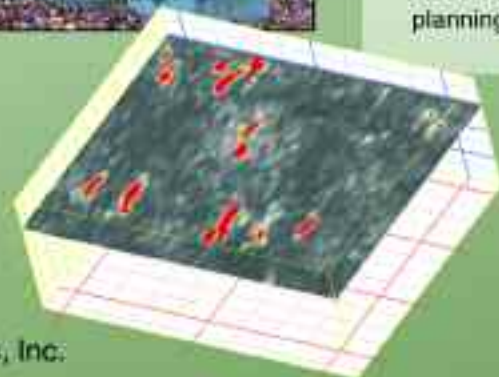


Ground Penetrating Radar  
SIR-3000™



**Get The Information  
You Need**

- Locate areas for excavation planning
- Identify sensitive areas for avoidance
- Make the most of your field time
- 3D data images for excavation planning and archaeological survey



GPR data collected over  
a 1750-1850's cemetery  
in Auburn, Massachusetts



Geophysical Survey Systems, Inc.

www.geophysical.com  
sales@geophysical.com  
800-524-3011



# “ARCHAIC PERIOD” TRADITIONS OF NEW ENGLAND AND THE NORTHEAST

Brian S. Robinson

*Brian Robinson is an Assistant Professor in the Department of Anthropology and Climate Change Institute at the University of Maine*

Archaic period traditions in the Northeast, as in other regions, are large abstractions that fit together uncomfortably, composed of more-or-less eclectic visible traits that are not immediately comparable. From some points of view, these awkward contrivances are a weakness of Culture History. Awkward they may be, but they incorporate hidden codes that are full of potential, like negotiations when the subtleties of greetings and threats have yet to be worked out. Patterns that seem arbitrary at one scale become more systematic and meaningful at another. The presence, absence, and spatial patterns of material remains may be organized around ritual or economy or selected aspects of both, profoundly influencing what we can see archaeologically. So-called ritual activities may reflect unique cultural principles, but they are repetitive and structured, and each tradition has the potential to reveal hidden aspects of organization. This paper reviews aspects of Archaic period cultural organization in New England and the broader Northeast. Here, long-standing cultural boundaries and environmental zones are variably overlaid with highly visible mortuary traditions and increasing evidence of anciently maintained organization.

In research on hunter-gatherers it is important to have a frame of reference, or a time, that is free of the ripple effects of more extreme cultural complexity. Application of a uniform term for a period is convenient, but I agree that the term “Archaic” has connotations that are difficult to put aside. In the Maine-Maritimes region the “classical Archaic-Woodland Stage concept” was long ago judged to be “essentially meaningless,” with the terms “aceramic” and “ceramic” proposed as regional descriptive labels (Sanger 1974:129). If a general term is sought for a highly variable entity, we may have to be satisfied with a meaningful core and very fuzzy boundaries. Regional archaeological traditions often have a core of cultural codes and ecological settings, but are inadequate for more precise cultural definition.

The greater Northeast encompasses the area of the original Archaic Pattern defined by William Ritchie (1938:108). The Laurentian and Narrow Point traditions are among the large

culture units of the Late Archaic period, with further contrasts long recognized between southern New England and the Far Northeast (eastern Maine and Atlantic Canada, Bourque 1992:1; Dincauze 1975:23). The so-called “Red Paint People” of Maine, the major topic of this paper, were represented mostly by cemeteries (Moorehead 1922:20). Such culture units do not need to be mutually exclusive. Multiple overlapping scales of observation keep the classifications active. The “Red Paint People” were rechristened as: (1) the “Moorehead phase,” defined as a whole-culture unit including occupation sites and cemeteries (Bourque 1992:27), and (2) the “Moorehead burial tradition,” representing a specialized mortuary subsystem (Sanger 1973:107). Willey and Phillips (1958:37) defined tradition as “a (primarily) temporal continuity represented by persistent configurations in single technologies or other systems” freeing us from the expectation that these subsystems should co-occur in time and space. Ideally this requires going back and forth between the scales of system and subsystem as part of the general practice of archaeology (Nassaney and Sassaman 1995).

The magnitude of apparent cultural differences between southern and northern New England has increased in recent years. Southeastern projectile point sequences from the Early and Middle Archaic periods (10,000–6,000 radiocarbon years B.P.) occur variably throughout southern New England, subsumed under the broad Atlantic Slope Macrotradition (Dincauze 1976:140). Projectile points of this period are altogether scarce in the Far Northeast and a widespread cultural hiatus was originally suspected. In the mid 1980s deeply stratified sites revealed ample occupation evidence without flaked stone points (Petersen and Putnam 1992) and the Gulf of Maine Archaic technological tradition was proposed, including early ground stone tool forms (full-channeled gouges and stone rods), flaked core technologies, and an absence of bifacial projectile points (Robinson 1992). The new tradition is based on frequencies of characteristic artifacts rather than presence or absence of diagnostic artifacts, modifying the rules so that rare diagnostic projectile points do not dominate cultural interpretation. The techno-



Figure 1. Early Moorehead burial tradition artifacts from the Godfrey cemetery. Greenstone tuff gouge (a), perforated whetstone (b), two-toned bannerstones (c, d).

logical tradition is accompanied by mortuary elaboration at 8500 B.P. The Morrill Point burial complex provides a likely ancestor to the later Moorehead burial tradition (Robinson 1996). With contrasts between northern and southern New England and multiple cultural subsystems, the stage is set for more detailed analysis of cultural organization.

By the beginning of the Late Archaic period (6000 B.P.), ritual foundations were nearly 3,000 years in the making. The Moorehead burial tradition is separable into three periods, representing a florescence of formal cemetery use and organization spanning about 5200 to 3700 B.P. At this time occupation sites associated with the whole-culture Moorehead phase are preserved in four important coastal shell middens that survived rising sea level (Bourque 1995; Byers 1979). Abundant use of large swordfish at these sites is a hallmark of the period, demonstrating open-sea hunting as part of broader coastal adaptations (Spiess and Lewis 2001). Harpoon foreshafts made of swordfish sword and decorated bone daggers link burial and occupation assemblages (Bourque 1995; Byers 1979). Related but distinct traditions occur in Newfoundland and Labrador (Sanger and Renouf 2006). Although 80 percent of the cemeteries were discovered before 1940, 34 formal cemeteries in Maine and New Brunswick are attributable to three periods of the Moorehead burial tradition (Robinson 2001), providing the basis for regional and landscape analysis that has transformed mortuary studies (Beck 1995).

Cemeteries show relatively abrupt changes in artifact styles and cemetery locations between the Early (5000 B.P., dura-

tion uncertain) and Middle periods (4500–4000 B.P.) of the Moorehead burial tradition. Late period sites (4000–3700 B.P.) extend locational trends of the Middle period but with a unique set of circumstances at one site that seems to represent a revival of Early period characteristics. Cemeteries from all three time periods are located near anadromous fishing locations (for alewife and shad, among other species), which is interpreted as a strong association of cemeteries with spring population aggregations, likely in the context of feasting activities rather than the coastal occupation areas that were used much of the year. A key to the social context of the cemeteries is the scale of the social gathering.

The Early Moorehead burial tradition is represented by a standardized set of specialized mortuary artifacts. The most common artifacts are stone gouges and long perforated whetstones (Figure 1a and 1b) reminiscent of the suite of artifacts from the Early Archaic period cemeteries of 3000 years earlier. Gouges at the most distant sites (Figure 2) are dominated by a single variety of waterlain volcanic or greenstone tuff (Figure 1a) that is thought to be from a single quarry source. Other specialized materials were selected for atlatl weights or bannerstones. In Maine, bannerstones are (with one exception) restricted to Early Moorehead tradition cemeteries, with five of seven specimens made from stones that are two-toned, or half light and half dark (Figure 1c and d; Robinson 1996). The standardized set of artifacts is distributed at equally standardized locations. Five of the six Early period sites (83 percent) are located on access routes between major interior river systems and the coast (Figure 2). Four of these (66 percent) are at major waterfalls that obstruct the main channel of the river. At least two are situated above well-known portage routes that all travelers confronted when moving between the coast and interior. Cemeteries of this period are like signposts at major geographical obstructions.

There is a distinct change in regional distribution between the Early and Middle Moorehead burial tradition (Figure 2). The majority of Middle period sites are located away from river obstructions, at tributary and pond outlets. While Early period sites are located an average of 35 kilometers above the head of tide on large interior river systems, most Middle period sites (57 percent, 12/21 cemeteries) are located on short coastal river drainages at an average of 11 km above head of tide (Robinson 2001:309). The greenstone tuff that dominated Early period gouges occurs only rarely in the Middle period, and the large perforated whetstones disappear and are replaced by similar proportions of stone plummets (Robinson 2006:Figure 14).

The centralized locations of Early period sites occur in a network of interior/coastal river routes and portages between large river systems (Figure 2). Although these locations could represent central access points, the Early Moorehead burial tradition corresponds in time with the greatest evi-



# SAA 75th Anniversary Campaign 2008 Annual Report

The year 2010 will mark the 75th anniversary meeting of the Society for American Archaeology. To celebrate this achievement, all SAA members have been asked to invest in the SAA's next 75 years through an endowment gift.

The SAA is the primary professional organization for archaeologists throughout the western hemisphere. Its mission is very broad, and it can achieve that mission more confidently and effectively by developing its endowments. Strong endowment funds will allow the SAA to take actions that aren't dependent solely on annual membership dues.

The 75th Anniversary Campaign to add \$500,000 to the SAA endowments began in the fall of 2005. Three years later, we are well on the way to this ambitious goal, with almost \$320,000 received in gifts and pledges.

The SAA Fundraising Committee, Board, and staff would like to thank each of the 511 campaign donors listed here and on the following pages for their commitment to the SAA's future.

## Leadership Gifts

### *\$10,000 & above*

Edwin Hession  
bequest of Frederick Matson  
Bruce & Sandra Rippeteau

### *\$7,500–\$9,999*

Tobi & John Brimsek  
Hester A. Davis  
William H. Doelle & Linda L. Mayro  
George H. Odell  
Lynne Sebastian

### *\$5,000–\$7,499*

Patricia Gilman & Paul Minnis  
Michael Glassow & Anabel Ford  
Lynne Goldstein  
William Lipe  
Vergil E. Noble  
Rowman & Littlefield Publishing Group  
Donald J. Weir  
Richard B. Woodbury

### *\$2,500–\$4,999*

Ken & Jane Ames  
Wendy Ashmore  
Susan Bender & Richard Wilkinson  
Jefferson Chapman  
Linda Cordell  
George L. Cowgill  
Jeffrey Dean  
Christopher Dore  
Robert L. Kelly  
Martha Rolingson  
Matthew J. Root  
Miriam T. Stark & James M. Bayman  
David Hurst Thomas & Lorann P. Thomas



*Kristin Baker of Howard University served an internship in the SAA's Washington, D.C. office. The internship was funded from the SAA General Endowment's earnings. Kristin is shown here assisting at the Annual Meeting in Austin, Texas.*

## CRM Firms Leadership Challenge Gifts

### *\$20,000 & above*

Cultural Resource Analysts, Inc.

### *\$10,000–\$19,999*

Alpine Archaeological Consultants, Inc.  
Desert Archaeology, Inc.  
Statistical Research, Inc.

### *\$5,000–\$9,999*

Commonwealth Cultural Resources Group, Inc.  
William Self Associates, Inc.

### *\$2,500–\$4,999*

EDAW  
Soil Systems, Inc.

# Thanks to all the General Campaign Donors

## *\$1,000–\$2,499*

Ray B. Auel & Jean M. Auel	Cathy Lynne Costin & Mitchell Reback
Ofer Bar-Yosef	Audrey Dittert
Garry J. Cantley	Jon & Cathy Driver
Emily McClung De Tapia	T. J. Ferguson
Karen Hartgen	Maria Franklin
Karen Hartgen in memory of Charles Fisher	W. Michael Gear & Kathleen O'Neal Gear
Keith W. Kintigh	Sarah A. Herr
Teresita Majewski	Roberta Jewett
Francis P. McManamon	Rosemary Joyce & Russell Sheptak
Barbara J. Mills	Janet E. Levy
Vivian B. Morales	Alexander J. Lindsay, Jr.
Richard Pailes	Barbara Little
Timothy K. Perttula	Katherine M. Moore
Mary J. Piper	Michael J. Moratto
Sarah H. Schlanger	Dan & Phyllis Morse
Dean R. Snow	Madonna L. Moss & Jon Erlandson
Paul Steed, Jr.	
Paul D. Welch	

## *\$500–\$999*

Anonymous (2)	Barry A. Price
Dawn A.J. Alexander	Janet Rafferty
Kathleen M. Sydoriak Allen	Alison E. Rautman
David G. Anderson	Nan A. Rothschild
Jane Eva Baxter & Theo Gordon	Patricia Rubertone
Karl K. Benedict	Katharine C. Ruhl
Nancy S. Bernard	Jeremy Sabloff
John Blitz & Lisa LeCount	Kenneth E. Sassaman, Jr.
Alan P. Brew	Julie K. Stein
Susan B. Bruning	University of Arizona Press
Greg Cleveland	Henry Wallace
Margaret W. Conkey	Joe E. Watkins
	Patty Jo Watson
	Ernest A. Wiegand



*A goal of the SAA's education program – to bring archaeology into K-12 classrooms.*

The **Public Education Endowment Fund** was established in 1997 and helps support SAA's public education activities which currently include organizing workshops that reach out to educators, exhibiting the Archaeology Education Resource Forum at professional meetings, publishing resource materials for educators, and supporting the Network of State and Provincial Archaeology Education Coordinators. An immediate goal is to enhance the Society's role in public education by providing funds to convert SAA's part-time staff position of Manager, Education and Outreach to full-time allowing the Society to expand and enrich this crucial program.

Karon Winzenz

Alison Wylie

## *Up to \$499*

Anonymous (12)	Christopher Bevilacqua
David R. Abbott	Marcia Bezerra
Yoshiko Abe	Evelyn Billo
Richard V. Ahlstrom	Margaret C. Biorn
Jean S. Aigner	Terje G. Birkedal
C. Melvin Aikens	M. James Blackman
Ricardo Alegria	Bonnie A. B. Blackwell
Elizabeth Alexander	Paul Blomgren
Carol Ambruster	John D. Bogatko
Daniel S. Amick	Charles C. Boyd, Jr.
Adrienne Anderson	Paul D. Boyd
William Andrefsky, Jr.	Janet Brashler
Roger Anyon	George H. Brauer
Risa Diamond Arbolino	John H. Broihahn
Traci Ardren	Melissa E. Brown
Jeanne E. Arnold	Elizabeth M. Brumfiel
Barbara Arroyo	Reid A. Bryson
Constance Arzigian	Adrian L. Burke
Marguerite Badovinac	Jo Ellen Burkholder
Larry L. Baker	Virginia L. Butler
Shane A. Baker	William E. Butler
Suzanne Baker	Bruce E. Byland
Geraldine E. Baldwin	John E. Byrd
Jesse Ballenger	Catherine Cameron & Stephen Lekson
Elizabeth M. Barnett	Mary Camozzi
Sherene Baugher	Susan Marie Carlo
Timothy Beach	Carol Carnett
Marilyn Beaudry-Corbett	Scott L. Carpenter
Elizabeth Benchley	Nicholas Chapin
James Benedict	James P. Charton
Anna S. Benjamin	Charles D. Cheek
Ann C. Bennett-Rogers	Beverly A. Chiarulli
Alice Berkson	Scarlett Chiu
	Jeffery J. Clark
	Charles R. Cobb
	James W. Cogswell



Andrew C. Cohen	Agapi Filini
Sally J. Cole	Daniel Finamore
Jack C. Collins	Paul R. Fish
Chip Colwell-Chanthaphonh	Ben Fitzhugh
Debra Corbett	Antonia E. Foias
John Cottier	Billie Follensbee
Kristine J. Crossen	Pam Ford
Ellen Cummings	Jacob Freeman
Leslie B. Davis	Edward Friedman
Karla Davis-Salazar	Veronica H. Frost
Patricia Dean	Robert E. Fry
Sharon S. Debowski	David N. Fuerst
Linda K. Derry	Sherwood Gagliano
Mary Didier	Lynn H. Gamble
Dena F. Dincauze	Douglas W. Gann
E. James Dixon	Ervan G. Garrison
Fred C. Dobbs	Lee S. Gee
Walter A. Dodd	D. Gifford-Gonzalez
Patricia Douthitt	Daniel M. Gilmour
Elsbeth L. Dowd	Dennis Gilpin
Elinor F. Downs	Christina M. Giovas
David E. Doyel	Jeffrey B. Glover
Andrew I. Duff	A. S. Goldsmith
Nicholas P. Dunning	Andrew "JR" Gomolak
Patricia A. Dunning	James H. Gordon
Tabitha F. Eagle	Martha Graham
William P. Eckerle	Roger C. Green
Richard Edging	Robert E. Greengo
Cynthia J. Eischen	T. Weber Greiser
Leslie E. Eisenberg	Linda Grimm
Melissa Goodman Elgar	Phredd Groves
David V. Ellis	Barbara J. Gundy
Ernestine S. Elster	Karl Gucke
Phoebe Eskenazi	Judith A. Habicht-Mauche
Helen Fairley	Barbara Ann Hall
Carl R. Falk	Reed J. Hallock
Elizabeth A. Fanjoy	Julia E. Hammett
Grayal E. Farr	Winston O. Hampton
William L. Fash, Jr.	John Harris, Jr.
Julie S. Field	Nina Harris
Terence Fifield	Peter D. Harrison

**The Native American Scholarships Fund** was established in 1988 to foster a sense of shared purpose and positive interaction between the archaeological and Native communities. The Fund has grown thanks to donations of book royalties, contributions from individuals and organizations, and the proceeds from silent auctions. In 1998, SAA began awarding an annual Arthur C. Parker Scholarship, which supports training in archaeological methods and theory for Native peoples from the United States and Canada who are students or employees of tribal cultural preservation programs. The scholarship is named for SAA's first president, who was of Seneca descent.



*CRM projects play a major role in American archaeology today, and CRM firms are providing a big boost to the campaign.*

Francis B. Harrold, Jr.	Shannon D. Koerner
Karen G. Harry	Prudence Krieger, M.D.
Rebecca Hawkins	Robert D. Kuhn
Kelley A. Hays-Gilpin	Susan M. Kus
Steve Heipel	Mary L. Kwas
Joseph M. Herbert	Steven Lakatos
Fred Hiebert	Jeffrey Lalande
William R. Hildebrandt	Patricia M. Lambert
Jane H. Hill	Jacqueline A. Landry
Bruce W. Hoffman	Kish D. LaPierre
John W. Hoopes	Joanne Lea
Mary R. Hopkins	Robert M. Leavitt
Amy Horn	Paul D. Lemaster, II
Margaret Howard	Shereen Lerner
Bruce Huckell	Richard Leventhal
Charlene D. Hutcheson	Ricky Lightfoot
Johna Hutira	Marlene S. Linville
Stephen S. Israel	Dorothy T. Lippert
Brantley Jackson	Ronald D. Lippi
Esther Jacobson-Tepfer	John C. Lothrop
Kaitlyn N. Jeffrey	Lisa J. Lucero
Amber L. Johnson	Lonnie C. Ludeman
L. Lewis Johnson	Sheryl Luzzadder-Beach
A. Trinkle Jones	Margaret M. Lyneis
Terry Jones	Mark J. Lynott
Judy K. Josserand	Joanne MacGregor-Hanifan
Arthur A. Joyce	Joanne Mack
Kathryn Kamp	Joanne Magalis
Flora S. Kaplan	Ann L. Magennis
Kimberly Kasper	Michael Magner
Kathleen L. Kawelu	Aline Magnoni
Edward Keenan	John J. Mahoney
Alice B. Kehoe	Robin Elise Mains
Marilyn Kelly-Buccellati	Linda R. Manzanilla
Nancy Kenmotsu	Ora V. Marek-Martinez
W. Gregory Ketteman	Amy V. Margaris
Maureen Kick	Robert Mark
A.M. U. Klymyshyn	William H. Marquardt
Patricia J. Knobloch	Roger D. Mason
Christopher Knüsel	W. Bruce Masse

Frances Joan Mathien  
 Kaitlyn N. Matthiessen  
 Patricia A. McNany  
 Joy McCorriston  
 Steven R. McDougal  
 Jeanette A. McKenna  
 Peter J. McKenna  
 R. Bruce McMillan  
 Lawrence Meier  
 Gerson Levi-Mendes  
 Patricia Mercado-Allinger  
 Lewis C. Messenger, Jr.  
 Phyllis E. Messenger  
 Jack Meyer  
 William D. Middleton  
 Elizabeth J. Miksa  
 Glenda F. Miller  
 Tom Minichillo  
 Mark D. Mitchell  
 Jeffrey M. Mitchem  
 Jeanne M. Moe  
 Hattula Moholy-Nagy  
 Anntoinette Moore  
 Palmyra A. Moore  
 E. Morenon  
 Vera E. Morgan  
 Raymond G. Mueller  
 Mickie M. Murin  
 Carole L. Nash  
 Fraser D. Neiman  
 Ben A. Nelson  
 Margaret C. Nelson  
 Zachary Nelson  
 Anna Neuzil in honor of  
 Grace Doschka  
 Michael Nowak  
 Barbara H. O'Connell  
 Hilka I. Oksala  
 Maxine H. Oland  
 Astrida Blukis Onat  
 Joel Palka  
 Jeff Parsons  
 Paul N. Parsons  
 B. Gregory Paulus  
 Dana L. Pertermann  
 Ann Phillips  
 Linda J. Pierce  
 Anne Pike-Tay  
 Bonnie Lynn Pitblado  
 Todd A. Pitezal  
 Virginia S. Popper  
 Alice W. Portnoy  
 Stephen Post  
 Anna Marie Prentiss  
 William Puppia  
 David E. Purcell  
 Burton L. Purrington  
 K. Anne Pyburn  
 Teresa P. Raczek  
 Gerry R. Raymond

Bruce Ream  
 Niels R. Rinehart  
 John D. Risetto  
 Victoria Robertson  
 Thomas R. Rocek  
 James Rock  
 Donnell J. Rogers  
 Anna C. Roosevelt  
 Leah Rosenmeier  
 Charles Rozaire  
 David W. Rupp  
 Nerissa Russell  
 Phyllis Saarinen  
 Daniel H. Sandweiss  
 David Sanger  
 Robert F. Sasso  
 Andrew H. Sawyer  
 Steven Schmuch  
 George L. Schneider  
 Stacy L. Schneyder  
 John W. Schoenfelder  
 Sissel Schroeder  
 James Schumacher  
 Paddy Schwartz  
 Donna J. Seifert  
 Michael Selle  
 Anthony Frank Servello  
 Richard Starr Shepard  
 Rita Shepard  
 Sarah C. Sherwood  
 Juliana Shortell  
 Kanalei Shun  
 E.A. Silva  
 Shari M. Silverman  
 Alan Simmons  
 Scott E. Simmons  
 Arleyn Simon  
 Brona G. Simon  
 Carla M. Sinopoli  
 S. Alan Skinner  
 Burton T. Smith  
 George S. Smith  
 Monica L. Smith  
 Phyllis E. Smith  
 John D. Speth  
 Kimberly Spurr  
 James J. Stapleton  
 Michael S. Bisson &  
 Marilyn S. Steely

The SAA General Endowment Fund was established in 1985 and helps insure the future of the SAA. Income from this general endowment provides long-term financial security, keeps dues more affordable, and helps the SAA fulfill its mission through the Annual Meeting; quality publications such as *American Antiquity*, *Latin American Antiquity*, and *The SAA Archaeological Record*; and programs in governmental affairs, public relations, and professional development.

Sarah L. Sterling  
 Rob Sternberg  
 Andrew M. Stewart  
 Robert J. Stokes  
 Karen E. Stothert  
 Bonnie W. Styles  
 W. R. Teegen  
 Diane L. Teeman  
 Lee Terzis  
 Mary Stevenson Thieme  
 Laura L. Thomas  
 Raymond H. Thompson  
 V. Ann Tippitt  
 Silvia Tomaskova  
 Peter Topping  
 Genevieve C. Treyvaud  
 D Ann Trieu Gahr  
 Ruth Troccoli  
 Tiffany A. Tung  
 Thomas J. Turck  
 Tom D. Turner  
 Meghan A. Tyler  
 Junzo Uchiyama  
 University of Pennsylvania  
 Press  
 University of Texas Press  
 University Press of Florida  
 Patricia A. Urban  
 Carla R. Van West  
 Christine S. VanPool  
 Anne Wolley Vawser  
 Karen D. Vitelli  
 Phillip L. Walker  
 Sarah Walshaw  
 LuAnn Wandsnider

Alvin D. Wanzer  
 John A. Ware  
 Jenny A. Waters  
 Malcolm C. Webb  
 Laurie Webster  
 Alice Wellman  
 E. Christian Wells  
 Barbara White  
 Catrina Whitley  
 Peter Whitridge  
 David R. Wilcox  
 Jerry D. William  
 Ray Williamson  
 Elizabeth Wilmerding  
 Kathryn Winthrop  
 Renata B. Wolyneec  
 Gail K. Wright  
 James C. Wright  
 Virginia A. Wulfkuhle  
 Jason Yaeger  
 Takeshi Yanagisawa  
 Lisa C. Young  
 Pei-Lin Yu  
 Jacqueline Zak  
 Michael S. Zatchok  
 Judith Zeitlin  
 Larry J. Zimmerman  
 Kari A. Zabler

### It's not too late to join the campaign to celebrate the SAA's 75th!

Make your donation or pledge on-line at [www.saa.org](http://www.saa.org), or use the form on the back inside cover. If you have any questions, please contact Tobi Brimsek at +1 202-789-8200.

**Thank you!**



*This donor list is current through September 26, 2008 and includes gifts of publication royalties.*



Figure 2: Distribution of Moorehead burial tradition cemeteries relative to long interior river drainages (green), short coastal drainages (tan), river routes and portages (Source: Robinson 2001).

dence of contrasting interior and coastal cultures involving the Laurentian tradition and little known coastal manifestations (Bourque 1995:242; Cox 1991; Sanger 2006:237). Current evidence suggests that the highly standardized Early period sites may be located on the boundary between interior and coastal groups. Most Middle period sites are clustered in smaller coastal drainages, away from major access routes. They are interpreted as kin-group scale aggregations in the coastal territory. Subject to future testing in occupation contexts, the change in cemetery location is interpreted as a change in social context, rather than a change in territories.

Evidence that these relationships are more than arbitrary comes from the Late Period Cow Point site on the Saint John River in New Brunswick (Figure 2, Sanger 1973). Most Late Moorehead burial tradition sites are located in the coastal territory, similar to Middle period sites. The Moorehead burial tradition expands eastward during the Late Period and the Cow Point cemetery is located far upriver (Figure 2). Uniquely at this site, woodworking tools are dominated by what appears to be the identical greenstone tuff that dominated woodworking tools of the Early Moorehead burial tradition, 1,000 years before (Sanger 1973). Two temporal components of the Cow Point site were recognized, centered at the same location but in somewhat different configurations (Figure 3, Sanger 1973). A series of artifact changes take place between the two temporal periods. Greenstone tuff dominates woodworking tools of both periods. Plummets are common only in the earlier component at Cow Point. In the reverse order of changes from the previous millennium, perforated and notched whetstones reappear at Cow Point in the later component when plummets disappear. Thus in three independent criteria—upriver location, the dominance of greenstone

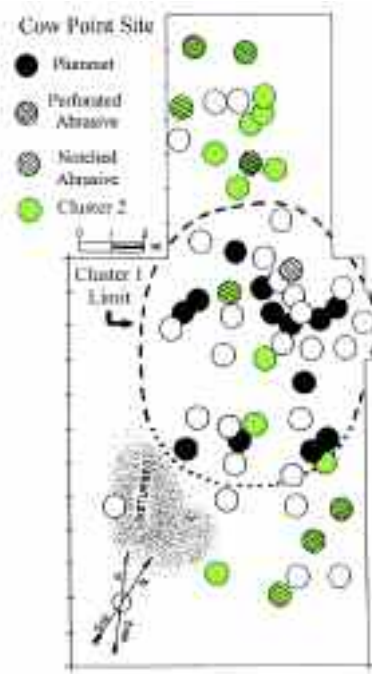


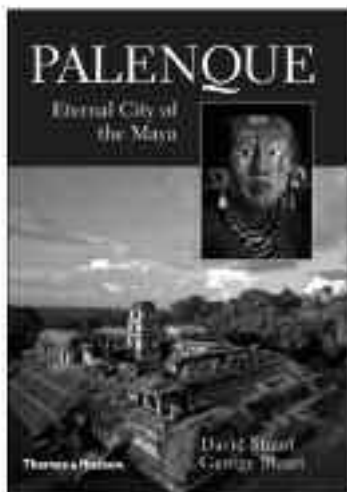
Figure 3. Cow Point Cemetery showing distribution of earlier Cluster 1 graves and later Cluster 2 graves (green), and their association with earlier plummets and later notched and perforated whetstones (Modified from Sanger 1973:15, Canadian Museum of Civilization).

tuff woodworking tools, and the temporal replacement of plummets by suspended whetstones—the Cow Point site appears to have revived characteristics of the Early period (Robinson 2006; Sanger 1973).

Changes in cemetery location between the Early and Middle Moorehead burial tradition provide context for changes at a single cemetery location 1,000 years later, perhaps at a newly established boundary location on the Saint John River. It is not expected that social symbolism from the two time periods are necessarily the same, but that the visibility afforded by ritual artifacts and landscape structure provides a platform for investigating social organization at multiple scales and times.

The Far Northeast was occupied by hunter-gatherers into recent times. The Wabanaki Confederation, an historic period alliance of communities and tribes speaking multiple dialects (Wabanaki Program of the American Friends Service Committee 1989:D1-21), encompasses the territory of the Moorehead burial tradition, using much the same network of rivers, portages, and gathering places. Does the kind of political and social alliance practiced by the Wabanaki extend to the Archaic period? Here lies the potential of the sometimes-eclectic material signatures of past traditions.

## New books on ancient worlds...



**David Stuart & George Stuart**

The story of this Maya city's rediscovery, told with panache by two leading Maya scholars

\$34.95 / 272 pages / 167 illus.



**Philip Matyszak & Joanne Berry**

100 biographies reveal the mightiest civilization of the ancient world through the lives of its citizens

\$40.00 / 304 pages / 217 illus.



**Thames & Hudson**  
thamesandhudsonusa.com  
Available wherever books are sold

## THE NEW ARCHAIC

### References Cited

- Beck, Lane A. (editor)  
1995 *Regional Approaches to Mortuary Analysis*. Plenum Press, New York.
- Bourque, Bruce J.  
1992 *Prehistory of the Central Maine Coast*. Ph.D. dissertation, Harvard University, 1971, Garland Publications, New York.
- 1995 *Diversity and Complexity in Prehistoric Maritime Societies: A Gulf of Maine Perspective*. Plenum Press, New York.
- Byers, Douglas S.  
1979 *The Nevin Shellheap: Burials and Observations*. Papers of the R.S. Peabody Foundation for Archaeology 9. Andover.
- Cox, Stephen L.  
1991 Site 95.20 and the Vergennes Phase in Maine. *Archaeology of Eastern North America* 19:135–161.
- Dincauze, Dena F.  
1975 The Late Archaic Period in Southern New England. *Arctic Anthropology* 12(2):23–34.
- 1976 *The Neville Site: 8000 Years at Amoskeag*. Peabody Museum Monographs 4. Harvard University, Cambridge.
- Moorehead, Warren K.  
1922 *A Report on the Archaeology of Maine*. Phillips Academy, Andover.
- Nassaney, Michael S., and Kenneth E. Sassaman (editors)  
1995 *Native American Interactions: Multiscalar Analyses and Interpretations in the Eastern Woodlands*. University of Tennessee Press, Knoxville.
- Petersen, James B., and David E. Putnam  
1992 Early Holocene Occupation in the Central Gulf of Maine Region. In *Early Holocene Occupation in Northern New England*, edited by Brian S. Robinson, James B. Petersen, and Ann K. Robinson, pp. 13–61. Occasional Publications in Maine Archaeology 9. Augusta.
- Ritchie, William A.  
1938 A Perspective on Northeastern Archaeology. *American Antiquity* 4(2):94–112.
- Robinson, Brian S.  
1992 Early and Middle Archaic Period Occupation in the Gulf of Maine Region: Mortuary and Technological Patterning. In *Early Holocene Occupation in Northern New England*, edited by Brian S. Robinson, James B. Petersen, and Ann K. Robinson, pp. 63–116. Occasional Publications in Maine Archaeology 9. Augusta.
- 1996 A Regional Analysis of the Moorehead Burial Tradition: 8500–3700 B.P. *Archaeology of Eastern North America* 24:95–148.
- 2001 Burial Ritual: Groups and Boundaries on the Gulf of Maine: 8600–3800 B.P. Ph.D. dissertation, Anthropology Department, Brown University, Providence, RI.
- 2006 Burial Ritual, Technology, and Cultural Landscape in the Far Northeast: 8600–3700 B.P. in *The Archaic of the Far Northeast*, edited by David Sanger and M.A.P. Renouf, pp. 341–381. University of Maine Press, Orono.

➤ ROBINSON, continued on page 46



# HUNTER-GATHERER ARCHAEOLOGY AND THE UPPER GREAT LAKES ARCHAIC

William A. Lovis

*William Lovis is a Professor in the Department of Anthropology at Michigan State University and Curator of Anthropology at the MSU Museum.*

The ability to ask and answer fine-grained behavioral questions hinges on the ability to acquire information of appropriate resolution and scale. In places where depositional and taphonomic processes act to inhibit this acquisition process, it is difficult to engage with current questions. This is clearly the case in the upper Great Lakes region, including the Huron-Michigan and Superior lake basins. So, for instance, there is little evidence of research into socially integrative feasting during the upper Great Lakes Archaic, a topic of interest worldwide. To be sure, evidence for integrative ritual and even anomalous meals is present in the regional Late Archaic record, most notably at burial sites known for the inclusion of standardized artifacts on nonlocal materials, and potentially by artifact caches of unique materials. But for most of us, these burial sites and caches are the high points of the Archaic. Laden with unique assemblages, they form an often-read core of an available literature with substantial time depth, and are summarized redundantly—a fault to which I too freely plead guilty.

Whether the products of feasts or not, and regardless of smaller-scale regional variations, or temporal changes in vegetation community, the economy of these Archaic people is known rather well. It hinged on some migratory waterfowl, large ungulates such as deer and elk (caribou earlier on), fish captured primarily with individual rather than collective technologies, and a regionally variable mix of nuts including walnut, hickory, butternut, and acorn. Sometimes the latter were stored in subterranean pits. Oh, by the way, the shapes of their projectile points and knives change over several millennia, and some are consistent enough that we categorize them, name them, and memorize them.

Sound dull? It can be!

Shaking us out of a somnambulant research walkabout through the Archaic requires a wholesale rethinking of what we view as the important questions in Great Lakes Archaic research, and appropriate and focused collection and integration of the newest information into redirected research designs. While not a radical paradigm shift, our approaches to application not only involve the reassessment of a pertinent problem, but also require innovative methods designed

to offset data deficiencies resulting from, among other factors, regional taphonomic issues. Here, I provide exemplar cases of such altered approaches as an outgrowth of a pending Michigan-centric discussion of the issue (Lovis 2008). From my perspective, important gains have been made by closer sistering of our research with the earth, chemical, and physical sciences, and taking advantage of enhanced technologies, to address fundamental behavioral questions from different, and at times surprising, vantage points.

There is longstanding interest in the issue of timing for the origins of horticulture keyed to domestic cultigens, including *Cucurbita*—an enterprise assisted by both numerous additional finds and the application of AMS dating techniques. Until recently the Great Lakes region was not a very active participant in the discussion, a situation changed by recent Saginaw River basin research. We now know that upper Great Lakes Archaic people were using wild squash earlier than 4,200 calibrated years ago, and domestic varieties by 3,800 calibrated years ago (Egan-Bruhy 2002; Monaghan et al. 2007). We have found that intact, domestic seeds are often not carbonized (Figure 1) and have been recovered from adjacent off-site contexts where they were probably grown and intentionally managed on floodplains (Lovis and Monaghan 2008).

This means that the last ca. 1,500 years of the Archaic was not solely a hunting-gathering adaptation, but rather incorporated at least one tropical domesticate, squash, for either food, technology, or ritual. The limited results of domestic plant recovery from intensive flotation within Archaic occupation areas, coupled with the discovery of non-carbonized domestic plant seeds from non-occupation contexts, suggests that we may actually be less likely to find such remains in occupation contexts than in off-site contexts adjacent to occupations. What does this tell us about the notions of site, locale, and landscape as nested spatial research arenas all of which require sampling even though they may not present evidence of occupation? It certainly begs the question of whether the “site” as traditionally defined is or should continue to be the appropriate unit of observation and/or analysis (Lovis and Monaghan 2008).

Common data deficiencies in the upper Great Lakes derive from the rather standard dilemma in the northern woodlands of an archaeological record produced by low-density, mobile groups moving over large areas. Such a pattern results in small, low artifact density debris scatters made even less visible by dense vegetation. Slow rates of soil development result in multiple occupations within vertically constrained soil units. The soil chemistry inhibits the preservation of organics for absolute dating. Due to either excavations of limited extent, or to actual assemblage composition, diagnostic tools are rare. Association of datable organics and diagnostics of any sort is cause for festivity.

Limited redress of these problems has benefited from the management activities of federal agencies. In Michigan's Upper Peninsula, survey targeting specific geochronologically distinct landforms has substantially increased site inventories (Anderton et al. 2008; Franzen 1986), and excavation at small Archaic sites has clarified their size, function, and age (Ferone 1999; Hill 1994, 2006). Major excavations and the use of regionally unusual dating techniques (thermoluminescence) have together clarified the timing and nature of reduction strategies attached to coarse quartz and quartzite tool industries (Benchley et al. 1988; Drake et al. 2008). Analysis of site-level spatial organization, or for that matter function, is almost absent due to limited excavation area, a problem currently being addressed (Skibo et al. 2008b).

Recent work at Grand Island and the Pictured Rocks National Lakeshore by Jim Skibo and John Anderton, respectively, in cooperation with the USDA Forest Service including John Franzen and Eric Drake, has begun to address these issues through focused, intensive work in a relatively small area, and in one case (Anderton) incorporating an earth science perspective. Skibo's excavations at several Archaic sites has broken with tradition, most notably by opening up very large areas, and in the process piece plotting individual items to detect hidden vertical relationships (Skibo et al. 2008a, 2008b). Presumably such site-level information will assist Anderton's (2008) interpretation of the new sites being recorded in the region as a consequence of predictions based on paleolandform and lake level modeling—time-honored approaches made more efficient and manageable by the application of high resolution GIS.

While the use of geochemical and trace element assessment has become relatively commonplace within archaeology, it has rarely been regularly applied to the upper Great Lakes Archaic. At Grand Island, Skibo et al. (2008b) have applied it in a very different context relating to a very different targeted end point that has provided startling results. Specifically, fat saturated, greasy, fire-cracked rock from a Late Archaic hearth, along with comparative Initial Woodland ceramic samples, was subjected to lipid extraction using High Temperature Gas Chromatographic techniques. So far, this is not



Figure 1. Uncarbonized *Cucurbita* seed from the Green Point site, Saginaw, Michigan. (Photo reproduced with permission of the author and G. William Monaghan).

very new. What is new is that the extracted plant oils have the chemical signature of nuts—probably acorns—which although mentioned ethnographically are not considered a common food resource in the Upper Peninsula of Michigan at any time. More importantly, Skibo was using the extracted materials as an experiment in dating the lipid residues, with promising results—now *that's* interesting!

Additionally, almost all of the formal tools, and there aren't many, are manufactured on nonlocal cherts, in some cases originating several hundreds of kilometers and an entire peninsula away (Skibo, personal communication, 2008). This observation raises an entirely different suite of questions about assemblage manufacture and use, and the role of transport, exchange, and mobility in the Late Archaic of southern Lake Superior. It also demonstrates that the historically observed low frequency of formal tools is probably *not* a product of sampling error at sites subjected to more limited excavation.

The movement of raw material and/or people over large distances in the upper Great Lakes has great time depth, and given ethnographic observations and modeling can even be considered expectable, especially in the northern forests of the Western Hemisphere (Lovis 2008). Stylistic analysis of Late Paleoindian/Early Archaic projectiles/knives from the Upper Peninsula suggest western Great Lakes affinities (Ruggles 2001), an association also recognized through the apparent preferential use of Hixton Silicified Sandstone procured from its sole source in western Wisconsin (Buckmaster and Carr 2004). Persistence of these long-distance movements suggests that even at the time of colonization, social connections had become embedded within the regular long-distance transport of raw materials (Carr 2008).

Similar patterns of long-distance movements have been inferred further to the south, during the Middle Holocene, when the water planes of the lake basins were substantially



Figure 2. Northern portion of Alpena-Amberley Ridge Looking Southwest (O'Shea 2008:Figure 3; Figure reproduced with permission of the author).

lower (Lovis et al. 2005). The substantial spatial and temporal void resulting from the Michigan-Huron basin being over 100 m below modern levels has been recognized for some time, while the potential for site exploration and recovery has been the subject of rudimentary modeling. Recent initiation of remote exploration of the Lake Huron bottomlands by John O'Shea may clarify other facets of this pattern that have been submerged for seven or more millennia. O'Shea (2008) is exploring a potential caribou migration corridor, the Lake Stanley Causeway, based on detailed reconstruction from bathymetric data of paleolandforms that would have been available during the Early Archaic (Figure 2). This work has significant potential, and is taking advantage of some of the most recent technology and high-resolution data yet available for the upper Great Lakes bottomlands. If it bears fruit, I will not only owe O'Shea a Lagavulin™, but it will open an entirely new arena for upper Great Lakes Archaic research.

Returning to the topic with which I began this tale, no discussion of the Archaic anywhere would be complete without at least some mention of the ritual regime, specifically reanalyses of the oft-cited Riverside site (Hruska 1967). In tandem, Thomas Pleger and Mark Hill exemplify directions for both enhancement and reinterpretation of this Late Archaic mortuary context. At a methodological level, temporal resolution of the ritual features at the site was relatively recently augmented by a new series of AMS dates on small organic traces bracketing the majority of what appears to be rather regular cyclic site use between 3000 and 2000 cal B.P. (Lovis 2008:730, Table 20.1; Pleger 2000:177, Table 2). Bayesian analysis employing OxCal suggests some potential for only one short hiatus in the millennium-long use of this locale (Lovis, personal unpublished analytic notes).

The context for Pleger's work, however, was a comparative study of changing social complexity between the earlier Oconto site, and the more recent Riverside site, and it is this focus on trends in the scalar or nested changes in social com-

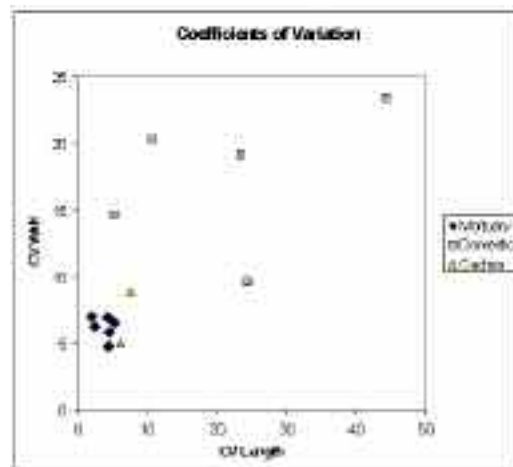


Figure 3. Comparison of coefficients of variation for length and width of mortuary bifaces from the Riverside Site, cache bifaces, and contemporary projectile points (Hill 2007: Figure 5; Figure reproduced with permission of the author).

plexity, inequality, and integration that underpin Hill's ongoing comparative multisite work on transegalitarian Archaic societies. His approach is multifaceted, using Inductively Coupled Plasma–Laser Ablation–Mass Spectroscopy to source copper at occupation and mortuary sites, qualitative approaches to the sourcing of well-known lithic raw materials, and measures of production standardization and the organization of technology (Figure 3) to understand production and exchange transmission as they relate to mobility and social interaction (Hill 2007).

Upper Great Lakes Archaic archaeology is not unique but shares much with other hunter-gatherer archaeology worldwide. To be sure, I think it is evident that gaining the degree of resolution necessary to address more refined questions in the Archaic of the upper Great Lakes will take sustained effort and will often be measured in small rather than quantum increments of gain. Older data and well-curated collections will form the core of this work; they will need to be reorganized and reanalyzed in cross-disciplinary frameworks. Traditional “same old” approaches will not be readily applicable, or for that matter acceptable. Problems will need to be reframed from totally different and often unusual vantage points. Information needs, data requirements, and appropriate methods to achieve new ends must be critically identified and prioritized.

Hunter-gatherer archaeology ain't easy, but it sure can be interesting!

*Acknowledgments.* I thank John Anderton, Eric Drake, Mark Hill, John O'Shea, and James Skibo for permission to cite

unpublished research material and/or permission to use selected illustrations from their work. Jodie O'Gorman and Dillon Carr made my prose and logic more readable and augmented its pithiness.

## References Cited

- Anderton, John, Robert Legg, and Robert Regis  
2008 Geoarchaeological Approaches to Site Location Modeling and Archaeological Survey, Pictured Rocks National Lakeshore, Michigan, USA. *Abstracts of the 73<sup>rd</sup> Annual Meeting*, March 26-30, 2008, Vancouver, BC, Canada, pp. 51-52. Society for American Archaeology, Washington, D.C.
- Benchley, Elizabeth D., Derrick J. Marcucci, Cheong-Yip Yuen, and Kristin L. Griffin  
1988 *Final Report of Archaeological Investigations and Data Recovery at the Trout Point I Site, Alger County, Michigan*. Report of Investigations 89. Archaeological Research Laboratory, University of Wisconsin-Milwaukee, Milwaukee.
- Buckmaster, Marla M., and Dillon H. Carr  
2004 *After the Flood: Exploring the Late Pleistocene and Early Holocene in the Upper Great Lakes*. Paper presented at the 50th Annual Midwest Archaeological Conference, St. Louis, Missouri.
- Carr, Dillon H.  
2008 *Searching for a Place to Call Home: A Landscape Approach to the Colonization of the Western Great Lakes Region*. Paper presented at the Urbana Conference on the Early Paleoindian Colonization of the American Midcontinent, Urbana, Illinois.
- Drake, Eric C., John Franzen, and James M. Skibo  
2008 Chronological Patterns of Raw Material Choice in the Grand Island-Munising Bay Locality in Michigan's Upper Peninsula: Archaeological Implications for Inter- and Intra-site Comparisons. Paper presented at the 53rd Annual Meeting of the Midwest Archaeological Conference, Inc, University of Notre Dame, South Bend, Indiana.
- Egan-Bruhy, Kathryn C.  
2002 Floral Analysis of Sites 20BY28 and 20BY387. In *A Bridge to the Past: The Post Nipissing Archaeology of the Marquette Viaduct Replacement Sites 20BY28 and 20BY387*, edited by W. A. Lovis, pp. 6.1-6.31. MSU Museum and Department of Anthropology, Michigan State University, East Lansing.
- Ferone, Troy J.  
1999 *Terminal Woodland Copper Procurement Strategies in the Southern Lake Superior Basin*. MA thesis, Department of Anthropology, Michigan State University. University Microfilms, Ann Arbor.
- Franzen, John.  
1986 *Prehistoric Settlement on the Hiawatha National Forest, Michigan: A Preliminary Locational Model*. Cultural Resource Management Report No. 4. Hiawatha National Forest, Escanaba, Michigan.
- Hill, Mark A.  
1994 *Ottawa North and Alligator Eye: Two Late Archaic Sites on the Ottawa National Forest*. Cultural Resource Management Series No. 6. USDA Forest Service, Ottawa National Forest, Ironwood, Michigan.
- 2006 The Duck Lake Site and Implications for Late Archaic Copper Procurement and Production in the Southern Lake Superior Basin. *Midcontinental Journal of Archaeology* 31:213-248.
- 2007 *Exchange, Ritual, and Emergent Social Complexity in the Late Archaic (3700-2000 BP) Western Great Lakes*. Doctoral dissertation research improvement grant proposal to the National Science Foundation. Department of Anthropology, Washington State University, Pullman. Cited with permission of the author.
- Hruska, Robert  
1967 The Riverside Site: A Late Archaic Manifestation in Michigan. *The Wisconsin Archeologist* 48:145-260.
- Lovis, William A.  
2008 Hunter-Gatherer Adaptations and Alternate Perspectives on the Michigan Archaic: Research Problems in Context. In *Archaic Societies: Diversity and Complexity across the Midcontinent*, edited by T. Emerson, D. McElrath, and A. Fortier, pp.725-754. State University of New York Press, Albany, in press.
- Lovis, William A., Randolph E. Donahue, and Margaret B. Holman  
2005 Long-distance Logistic Mobility as an Organizing Principle among Northern Hunter-Gatherers: A Great Lakes Middle Holocene Settlement System. *American Antiquity* 70:669-693.
- Lovis, William A., and G. William Monaghan  
2008 Chronology and Evolution of the Green Point Floodplain and Associated *Cucurbita pepo*. In *Current Research in Northeast Paleoethnobotany II.*, edited by J. P. Hart, J. E. Terrell and J. Rosen, pp. 139-148. Bulletin 512. New York State Museum, Albany, in press.
- Monaghan, G. William, William A. Lovis, and Kathryn C. Egan-Bruhy  
2006 The Earliest *Cucurbita* from the Great Lakes Region, Northern USA. *Quaternary Research: An Interdisciplinary Journal* 65(2):216-222.
- O'Shea, John M.  
2008 *Ancient Hunters and the Lake Stanley Causeway: A Pilot Study*. Proposal number 0829324 to the National Science Foundation. Museum of Anthropology, University of Michigan, Ann Arbor. Cited with permission of the author.
- Pleger, Thomas C.  
2000 Old Copper and Red Ocher Social Complexity. In *Papers in Honor of James B. Stoltman*. *Midcontinental Journal of Archaeology* 25:169-190.
- Ruggles, David L.  
2001 *Mobility, Style, and Exchange Among Upper Great Lakes Paleoindians*. Ph.D. dissertation, Department of Anthropology, Michigan State University, East Lansing.
- Skibo, James M., Eric C. Drake, Fernando Neubauer, and Michael Schaefer  
2008a Late Archaic and Woodland Resource Selection and Internal Site Structure: A View from the South Shore of Lake Superior. *Abstracts of the 73<sup>rd</sup> Annual Meeting*, March 26-30, 2008, Vancouver, BC, Canada, pp. 513-514. Society for American Archaeology, Washington, D.C.
- Skibo, James M., Mary E. Malaney, and Eric C. Drake  
2008b Stone Boiling, Fire-Cracked Rock, and Nut Oil: Exploring the Origins of Pottery Making on Grand Island. Submitted to *The Wisconsin Archeologist*.



# IMAGINING THE ARCHAIC

## A VIEW FROM THE MIDDLE FRASER CANYON OF BRITISH COLUMBIA

**Anna Marie Prentiss**

*Anna Marie Prentiss is an Associate Professor in the Department of Anthropology at the University of Montana.*

It was another hot and steamy day in the Gulf Lowlands near Tampa Bay, Florida. Large green beetles buzzed past us like slow-moving tankers and mosquitoes swarmed. There were large alligator tracks in the soft sand nearby. Our test unit yielded the occasional flake along with an abundance of oak and palmetto roots. Suddenly, a large, blue chert biface appeared in the screen.

"Archaic junk," announced one of the senior archaeologists.

I was relatively new to archaeology but I still wondered, "If this is junk, what is the good stuff?"

As if on cue, the guy continued, "I wish we'd get some Safety Harbor (the local designation for Mississippian) stuff. There's supposed to be a village in this area and we should be getting pottery, midden material, and maybe even burials. There was just nothing going on in the Archaic."

We never did find the Safety Harbor village but the thought lingered with me. Was there really nothing going on in the Archaic? Were the people of the Archaic so far down on the scale of cultural complexity as to be of minimal interest even to professional archaeologists? Or even worse, were they just "scrub Indians, so poor they didn't even have whole pots," as one of the local "old boys" had so eloquently put it.

### Imagining the Archaic

Of course, the latter brand of thought has no place in modern archaeology. But terminology has a way of creating theoretical blinders forcing us into seemingly inescapable corners. Much of our terminology about past cultures is derived from nineteenth-century thinking with its emphasis on progress from the rude beginnings of culture to the shining lights of (European) civilization. Neoevolutionists of the middle twentieth century chose Spencer (over Darwin) as their theoretical guide (Dunnell 1980) and culture change remained an in situ process of technological advancement.

The Archaic was envisioned as a tendency toward greater harnessing of energy from the expanding broad leaf forests of the eastern Woodlands. Archaic peoples were described as "forest nomads" (Caldwell 1958) gradually shifting from a hunting way of life to an "efficient" emphasis on forest (e.g., nuts), riverine and coastal resources as marked by the rise of shell mounds and other middens. Increased frequencies of wood-working tools and domestic features suggested a slow increase in sedentism during the millennia we call the Archaic. Major sociopolitical, economic, and demographic change, other than that associated with limited sedentism, would not come without the technological advances of pottery and domesticated foods that generally mark the end of the Archaic.

Identifying past cultures as embodied trends denies their unique historicity and limits our abilities to address variation. As argued by Sassaman (this issue), perhaps the time has come to discard our pre-conceived notions of the Archaic, and maybe of hunter-gatherers in general. Imagine the Americas during the time we call the Archaic, a world of human societies, products of unique histories, simultaneously embedded and interconnected in such a wide range of social and ecological relationships as so vividly attested at such sites as Watson Brake, Poverty Point, and Stallings Island. Imagine a North American archaeology, freed from the constraints of the "Archaic stage," where none of those ancient societies were trends or pre-adaptations.

### The Middle Fraser Canyon Villages

Today, I work on the Plateau of the interior Pacific Northwest, more specifically in the Middle Fraser Canyon of south-central British Columbia. The "Mid-Fraser" is a long way from lowlands of west Florida, with its towering mountain peaks surrounding deep canyons etched by the Fraser River and its tributary drainages. Although this is the warmest place in British Columbia, permanent snow fields persist on the highest mountains even through July and August, and freezing temperatures can occur almost any time of year. But summer also brings massive numbers of salmon into the



Figure 1. Photograph of the Keatley Creek site facing west (photo by Duggan Backhouse-Prentiss).

Mid-Fraser, which, along with other foods like geophytes or roots, berries, and larger game, served as the mainstay for the large human populations that inhabited the ancient villages of the area.

Nearly the entire Holocene archaeological record on the Plateau has been termed “Archaic” (Andrefsky 2004), reflecting a hunting/gathering/fishing way of life, lacking pottery and other hallmarks of so-called Formative period cultures elsewhere in the Americas. However, many of these societies were by no means the simple nomads conjured by some traditional images of the Archaic. When Scottish explorer Simon Fraser conducted his famous voyage down the Fraser River in 1808, he visited large fortified villages near what would become the modern-day town of Lillooet, British Columbia. We know today these villages were occupied by the St’at’imx, Salish-speaking people operating a cultural system similar to that of the more well known Northwest Coast, featuring intensive salmon harvesting and storage, extensive exchange networks, and hereditary social inequality (Teit 1906).

The ancient history of the Middle Fraser Canyon villages is complex and has been subject to extensive study (Hayden 1997; Prentiss et al. 2008), revision (Prentiss et al. 2003, 2007), and debate (Hayden 2005; Prentiss et al. 2005). Inter-

disciplinary research conducted by my teams suggests that while people had periodically occupied housepits in the Mid-Fraser area since at least 3000 B.P.,<sup>1</sup> the aggregated villages, as at Bridge River and Keatley Creek (Figure 1), did not emerge until some time between 1,700 and 1,900 years ago. And it is now evident that the development of the Mid-Fraser villages was not idiosyncratic to just a few sites around Lillooet, B.C. The so-called Lillooet phenomenon may have spread from the vicinity of Lytton, B.C. to the mouth of the Chilcotin River, far to the north.

Extensive dating of the Bridge River site indicates that initial occupations consisted of only limited numbers of houses, but included the full range of house sizes, which, at Bridge River, spanned 10 to 18 m in diameter (Figure 2). Once established, the Bridge River village grew rapidly, expanding by at least 400 percent between about 1800 and 1100 B.P. We have dated 29 housepits to virtually the same date at ca. 1100–1200 B.P. and suspect many more will ultimately fall in this range as well. Even more fascinating, the village evolved, during this time, from a small relatively random scatter of houses to a clearly organized pattern featuring two arc-like or circular arrangements of small and large housepits (Figures 2 and 3). The Keatley Creek village probably started around 1700 B.P. following a history of sporadic earlier occupations. We do not know how the village grew,

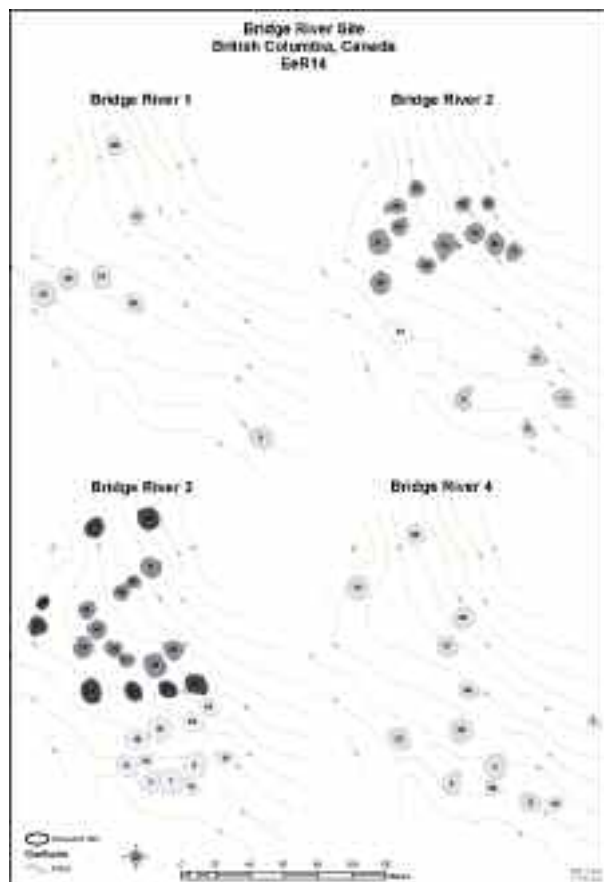


Figure 2. Maps illustrating changes in occupation patterns over time at the Bridge River site.

though it is possible that the village may have developed in a series of linear clusters given the arrangement of houses at the village (Figure 4), perhaps reflecting divergent social units similar to those of Bridge River.

One of the big questions underlying Mid-Fraser studies is the evolution of ascribed social inequality as recognized during the early historic period. Hayden (1997) asserts that it may have been a characteristic of social relations throughout much of the life of villages such as Keatley Creek. However, our research (Prentiss et al. 2007) has failed to find evidence for inequality, at least as manifested in significant inter-household differences in artifacts and food remains, prior to about 1200 B.P. After this point there are obvious distinctions between larger and smaller housepits implying differential access to wealth items and some subsistence resources. However, the pattern is short-lived given abandonment of Keatley Creek by around 800–900 B.P.

Multi-village organizations may have come into existence in the Mid-Fraser, minimally perhaps during the time of peak populations around 1100–1300 B.P. Hayden and Ryder (1991) speculated that Mid-Fraser polities could have had characteristics of chiefdoms. Although this idea has not met with favor among some of the region's archaeologists and ethnologists, it seems all the more likely given Schaepe's (2006) recent identification of terminal prehistoric and early historic period Salishan polities in the Lower Fraser Canyon.

It is well known that the Mid-Fraser area was substantially vacated for several hundred years between about 800 and 500 years ago. Hayden and Ryder (1991) explained the apparent abandonment as the result of a catastrophic landslide. Others argued for regional changes in resource conditions (e.g., Kuijt and Prentiss 2004). Indeed, a number of oceanographic studies now confirm optimal marine production conditions in the eastern Pacific, coinciding with the rise of the Mid-Fraser villages (e.g., Patterson et al. 2003). Then as marine production fell during the Medieval Warm period, the Mid-Fraser villages were abandoned. Bridge River may have been one of the first to be abandoned given its far heavier reliance on salmon compared to other similarly dated contexts (e.g., Keatley Creek).

The pattern of localized abandonments may have played a role in emergent inequality. If salmon runs grew unpredictable during the period of 1200–800 years ago as seems likely (Chatters et al. 1995), villages with other subsistence options could have held on longer. Household heads may have used their new-found position to leverage demographic and economic advantage for their households, perhaps triggering the trappings of more formal interhousehold ranking and the emergence of something at least close to ascribed inequality. Our field research at the Bridge River site should shed light on this topic in the coming years.

Villages were reestablished in the Mid-Fraser area some time after around 500 years ago. The arrangement of houses at Bridge River now consisted of a loose linear distribution (Figure 3). Variation in house size and respective artifacts and faunal remains approximates our expectations for social relationships described in the ethnographic accounts. The best evidence for late period reoccupation at Keatley Creek comes from its margin where a series of small houses have been excavated with dates of ca. 200–300 B.P. (Hayden and Adams 2004).

## Conclusion

During a conference presentation on Mid-Fraser archaeology a number of years ago I was challenged by an outraged ethnologist who argued that Plateau hunter-gatherers were never more socially complex than small egalitarian bands.





Figure 3. Artist's reconstruction of the Bridge River village at peak size ca. 1100–1200 B.P. (drawing by Eric Carlson).

For decades the peoples of the Archaic have been relegated to this kind of back-yard role as efficient foragers not well connected to the events of world history. But even a short visit to Bridge River, Keatley Creek, Watson Brake, or Poverty Point evokes a North American past rich in history and fundamentally linked to a broader pattern of world events.

The implications of this line of reasoning are potentially staggering. Past peoples may have had very different forms of organization than we have encountered in the ethnographic record. Some may have been more socioeconomically or politically complex in the past than in recent times. Consequently, we can no longer assume that cultural evolution was in any way progressive. Indeed, patterns and processes of cultural diversification and decimation (e.g., Prentiss and Chatters 2003) may even have been the rule during times of major cultural transitions. If this was the case it virtually guarantees that socially embedded human actors, affected by the historically contingent whims of nature, were essential to the rise and fall of human societies during that long time span we call the Archaic.

Fifty years ago, Joseph Caldwell published his highly influential monograph defining the Archaic and setting in motion a generation of researchers who sought in the Archaic the foundations of later prehistoric developments. We now return to the Archaic to gain new insight into this period of ancient American history for its own merits. We are limited only by our imaginations.

*Acknowledgments.* I thank Ken Sassaman for inviting me to contribute this paper. Research at the Keatley Creek and Bridge River sites was conducted in partnership with the

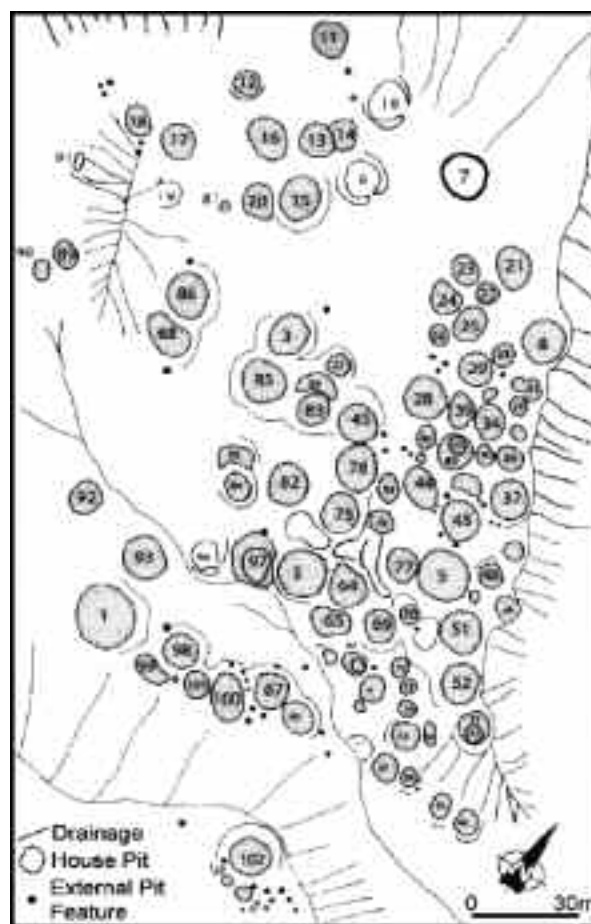


Figure 4. Map of the core village area of the Keatley Creek site.



Pavilion and Bridge River Bands of the Stl'at'imx Nation. Funding was generously provided by the National Science Foundation, the Wenner-Gren Foundation for Anthropological Research, Inc., and the University of Montana.

## Note

1. I use the terms "B.P." and "years ago" interchangeably to mean calibrated radiocarbon years ago.

## References Cited

- Andrefsky, William Jr.  
 2004 Materials and Contexts for a Culture History of the Plateau. In *Complex Hunter-Gatherers: Evolution and Organization of Prehistoric Communities on the Plateau of Northwestern North America*, edited by William C. Prentiss and Ian Kuijt, pp. 23–35. University of Utah Press, Salt Lake City.
- Caldwell, Joseph R.  
 1958 *Trend and Tradition in the Prehistory of the Eastern United States*. American Anthropological Association Memoir 88.
- Chatters, James C., Virginia L. Butler, Michael J. Scott, David M. Anderson, and Duane A. Neitzel  
 1995 A Paleoscience Approach to Estimating the Effects of Climatic Warming on Salmonid Fisheries of the Columbia Basin. *Canadian Special Publication in Fisheries and Aquatic Sciences* 21, 489–496.
- Dunnell, Robert C.  
 1980 Evolutionary Theory and Archaeology. In *Advances in Archaeological Method and Theory*, Vol. 6, edited by M. B. Schiffer, pp. 35–99. Academic Press, New York.
- Hayden, Brian  
 1997 *The Pithouses of Keatley Creek*. Harcourt Brace College Publishers, Fort Worth.  
 2005 The Emergence of Large Villages and Large Residential Corporate Group Structures among Complex Hunter-Gatherers at Keatley Creek. *American Antiquity* 70:169–174.
- Hayden, Brian, and Ron Adams  
 2004 Ritual Structures in Transegalitarian Villages. In *Complex Hunter-Gatherers: Evolution and Organization of Prehistoric Communities on the Plateau of Northwestern North America*, edited by William C. Prentiss and Ian Kuijt, pp. 84–102. University of Utah Press, Salt Lake City.
- Hayden, Brian, and June Ryder  
 1991 Prehistoric Cultural Collapse in the Lillooet Area. *American Antiquity* 56:50–65.
- Kuijt, Ian, and William C. Prentiss  
 2003 Villages on the Edge: Pithouses, Cultural Change, and the Emergence of Complex Forager-Fishers. In *Complex Hunter-Gatherers: Evolution and Organization of Prehistoric Communities on the Plateau of Northwestern North America*, edited by William C. Prentiss and Ian Kuijt, pp. 155–170. University of Utah Press, Salt Lake City.
- Patterson, R. T., A. Prokoph, A. Kumar, A. S. Chang, H. M. Roe  
 2003 Late Holocene Variability in Pelagic Fish Scales and Dinoflagellate Cysts along the West Coast of Vancouver Island, NE Pacific Ocean. *Marine Micropaleontology* 55:183–204.
- Prentiss, Anna Marie, Guy Cross, Thomas A. Foor, Dirk Markle, Mathew Hogan, and David S. Clarke  
 2008 Evolution of a Late Prehistoric Winter Village on the Interior Plateau of British Columbia: Geophysical Investigations, Radiocarbon Dating, and Spatial Analysis of the Bridge River Site. *American Antiquity* 73:59–82.
- Prentiss, Anna Marie, Natasha Lyons, Lucille E. Harris, Melisse R.P. Burns, and Terrence M. Godin  
 2007 The Emergence of Status Inequality in Intermediate Scale Societies: A Demographic and Socio-Economic History of the Keatley Creek Site, British Columbia. *Journal of Anthropological Archaeology* 26:299–327.
- Prentiss, William C., Michael Lenert, Thomas A. Foor, Nathan B. Goodale, and Trinity Schlegel  
 2003 Radiocarbon Dating at Keatley Creek: The Chronology of Occupation at a Complex Hunter-Gatherer Village. *American Antiquity* 68:719–736.
- Prentiss, William C., Michael Lenert, Thomas A. Foor, and Nathan B. Goodale  
 2005 The Emergence of Complex Hunter-Gatherers on the Canadian Plateau: A Response to Hayden. *American Antiquity* 70:175–180.
- Prentiss, William C., and James C. Chatters  
 2003 Cultural Diversification and Decimation in the Prehistoric Record. *Current Anthropology* 44:33–58.
- Schaepe, David M.  
 2006 Rock Fortifications: Archaeological Insights into Precontact Warfare and Sociopolitical Organization among the Sto:Lo of the Lower Fraser Canyon B.C. *American Antiquity* 71:671–706.
- Teit, J.  
 1906 *The Lillooet Indians*. Memoirs of the American Museum of Natural History, Jesup North Pacific Expedition 2, 193–300.

# WHAT'S SO ARCHAIC ABOUT THE LATE ARCHAIC?

## RECENT DISCOVERIES IN SOUTHWESTERN NORTH AMERICA

**Jonathan B. Mabry**

*Jonathan Mabry is an archaeologist with the Historic Preservation Office, Tucson, Arizona.*

**T**he transition from hunting and gathering to agriculture has been a research focus in the southwestern U.S. and northwestern Mexico since the 1930s. In the wake of a burst of new data and interpretations beginning in the 1980s and continuing today, the Southwestern "Late Archaic period" has been rethought and renamed.

The current picture of the interval 2200 B.C.–A.D. 50 includes evidence of widespread food production based on multiple cultigens and agricultural techniques, including canal irrigation and terracing of hillsides; seasonal, if not longer-term sedentism; logistical settlement systems; architectural variability that includes specialized food storage structures and communal facilities, in addition to houses; and production of non-utilitarian ceramic vessels and figurines. Today, sites with early evidence of agriculture are often assigned to the "Early Agricultural Period," and the previously used term "Late Archaic" is reserved for nonagricultural (forager) sites dating to the same interval. The term "Early Formative Period" has also been proposed for this interval, but "Early Agricultural Period" has gained wider acceptance, and is used here.

### Arrivals and Dispersals of Mesoamerican Cultigens

During the period 2500–750 B.C., an interval of increased effective moisture in the region, several tropical cultigens spread northward from Mesoamerica and then dispersed across the region. Maize and pepo squash were the first to arrive, possibly together as a complex, by 2200–2100 B.C. Maize spread rapidly from the desert borderlands to the southern Colorado Plateau and Mogollon Highlands, apparently by leapfrogging between damp alluvial settings. Pepo squash spread more slowly, reaching the plateau and highlands between 1200–1100 B.C. Common bean and bottle gourd arrived about a millennium after maize and pepo squash, and spread gradually northward. New investigations continue to push back the earliest known ages of tropical cultigens in the Southwest and its subregions, so the chronology of arrivals and dispersals will continue to change.

Single introductions seem improbable; multiple introductions of different landraces of the Mesoamerican cultigens are a more likely scenario.

### Possible Indigenous Cultigens and Proto-Agriculture

Evidence is accumulating that some native plants were also cultivated in the desert borderlands, including cotton (either wild or domesticated), and possibly native varieties of tobacco and amaranth. In addition, many researchers have suggested that other native plants were semi-cultivated in the Southwest prior to the arrival of tropical cultigens. Plant remains recovered from Middle and Late Archaic sites dating between 3000 and 1000 B.C. often include weedy, large-seeded, and leafy annuals and perennial grasses, such as goosefoot, amaranth, Indian rice grass, dropseed grasses, tansy mustard, and beeweed. Most of these plants prefer naturally disturbed, damp alluvial soils. Their regular occurrence in archaeological sites from this early time period, and their abundance, suggest that these wild native plants were intensively gathered by Archaic groups, and in some locations may have been protected, encouraged, or even cultivated. In addition to tropical and local cultigens and semi-cultigens, subsistence remains from early farming sites often include these native wild species and a wide variety of other wild plants and animals, showing that early Southwestern farmers were also intensive foragers, hunters, and fishers.

### Early Cultivation Techniques

For decades, it was envisioned that agriculture spread across the Southwestern landscape as a single technique. However, considerable diversity is now recognized from the locations of settlements and fields on specific landforms and soils, from remnants of built structures and surface modifications that enhanced and directed runoff, from buried remains of canals that diverted perennial water sources, and from signs of fire to clear weeds and brush. The evidence reflects varied forms of dry farming (exploiting residual soil moisture), runoff farming (diverting slope runoff to fields), flood farm-

ing (locating fields in naturally flooding areas), water-table farming (locating fields in areas with high water tables), and irrigated farming (diverting perennial river or spring flows with canals) in use between about 2200 B.C. and A.D. 50.

The earliest cultivation techniques were probably water-table farming and flood farming, practiced in similar alluvial settings in the desert borderlands and the southern Colorado Plateau by 2200–2100 B.C. Runoff farming using hill-side terraces was practiced in northwestern Chihuahua by 1500 B.C., and using diversion ditches at the bases of slopes on the southern Colorado Plateau by 1200 B.C. Irrigated farming was practiced in the desert borderlands by 1250 B.C. (and possibly as early as 1500 B.C.), and by 1200 B.C. on the southern Colorado Plateau. Dry farming in dune fields and other areas with naturally mulching sandy soils developed on the southern Colorado Plateau by 1700 B.C. (and possibly as early as 2100 B.C.), and in the Mogollon Highlands by 1300 B.C. Each group of early farmers probably practiced multiple types simultaneously, and shifted emphasis when necessary, but probably specialized in certain techniques.

### The Tucson Basin: A Laboratory of Early Agricultural Period Research

Since the 1980s, an explosion of discoveries at Early Agricultural Period sites in the Tucson Basin has pushed back the earliest Southwestern dates for agriculture, canals, pottery, cemeteries, communal buildings, and possibly for courtyard house groups, plazas, and the bow-and-arrow. The majority of the new data has emerged since 1993 from CRM projects conducted at sites in the path Interstate 10 highway and in the west side of downtown Tucson, both located in the former floodplain of the Santa Cruz River.

In the Tucson Basin and the rest of the desert borderlands, the Early Agricultural Period is divided into two phases (San Pedro, 1200–800 B.C., and Cienega, 800 B.C.–A.D. 50) based on differences in age, artifact styles, and assemblage diversities. Common to both phases are notched dart points, round or oval pithouses, abundant maize remains, bell-shaped storage pits, specialized storage structures, rock-filled roasting pits, canals, wells, flexed inhumations, canid (probably dog) burials, untempered pottery, fired-clay anthropomorphic figurines, stone pipes, a variety of bone and antler tools, personal adornments made of marine shells and other materials, and use of red ochre pigment. Perishable material culture inferred for the San Pedro phase includes coiled basketry (detected from impressions in fired clay) and possibly cotton textiles (inferred from both cotton pollen and ceramic and stone spindle whorls). Simultaneous use of the atlatl and the bow-and-arrow during the Cienega Phase is suggested by arrow-sized points found alongside dart-sized points and stone atlatl weights and finger loops.

While primary inhumations were the most common burial type during both phases, secondary inhumations and secondary cremations are also known from Cienega Phase sites. During the San Pedro Phase, primary inhumations were placed within habitation areas. The first discrete, spatially separated cemeteries developed during the Cienega Phase. Grave offerings during both phases included red ochre, broken metates and whole ground stone tools, lumps of black pigment, stone dart points and bifaces, ceramic figurine fragments, marine shell beads, stone pipes, and bone awls. Relatively uniform mortuary patterns appear to reflect egalitarian social structures.

Early Agricultural Period sites in the Tucson Basin provide evidence for a farmer-collector settlement pattern with relatively long-term, multiple-function residential sites concentrated in the Santa Cruz River floodplain, and short-term, special-function base camps concentrated in upper bajada zones. Because floodplain residential sites were frequently inundated by overbank floods, these settlements were characterized by a relatively ephemeral architectural style, and particular locations were periodically abandoned and reoccupied over time, creating extensive sites, often with large numbers of superimposed cultural features. The San Pedro Phase site of Las Capas (Figure 1) has thick midden deposits with unusually high artifact and feature densities, indicating longer and more intensive occupations than at other known Early Agricultural Period sites.

At the Cienega Phase site of Santa Cruz Bend were found the earliest known Southwestern examples of a large communal structure (“big house”; Figure 2), courtyard house groups, cremation burials, and possibly a plaza. Cienega Phase “big houses” have also been found at four other sites in southeastern Arizona. These structures, up to three times larger than the average houses and lacking internal storage pits, likely functioned as communal-ceremonial buildings and represent a level of social organization above the household. At the Tumamoc Hill site, terraces were constructed for house platforms and possibly gardens during the Cienega Phase, similar to the San Pedro Phase *trincheras* sites in northwestern Chihuahua. The Wetlands site is a Cienega Phase cemetery. Jewelry made from marine shell species native only to the Pacific coast, and projectile points made from obsidian from distant sources, indicate the development of long-distance trade during the Cienega Phase.

Discoveries since the mid-1990s have demonstrated that Mesoamerican cultigens and many material culture elements of the Early Agricultural Period were present in the Tucson Basin long before the San Pedro Phase. Pit structures, storage pits, and maize dated to between 2100–1200 B.C. have now been reported from the Clearwater, Las Capas, and Los Pozos sites along the Santa Cruz River. Untempered, fired-clay pottery sherds decorated with incised designs and probable



Figure 1. Excavations at the Early Agricultural Period site of Las Capas near Tucson, Arizona have revealed many new details of the transition to agriculture and village life in Southwestern North America. The canal in the center of the excavation area dates to 1200 B.C. Photo by Adriel Heisey.

ceramic figurine fragments, along with charred maize and both Cortaro points (a style which extends into Mexico) and Armijo or San Jose dart points (Southwestern styles), were recovered from pithouses and storage pits dating to 2100 B.C. at the Clearwater site. Currently, these are the oldest known fired ceramics in the Southwest, rivaling the ages of the oldest ceramics in Mexico.

It is not yet possible to define phases within the long interval of agriculture preceding the San Pedro Phase, and for now the interval 2100–1200 B.C. in the desert borderlands is referred to as simply the “unnamed interval” of the Early Agricultural Period. No major interruptions or shifts in regional occupation or material culture have been identified for the full span of the Early Agricultural Period (2100 B.C.–A.D. 50), and it appears to have been a long interval of cultural continuity.

Evidence of water control along the Santa Cruz River has been accumulating since 1993. The earliest identified canal is at the Clearwater site and appears to date to approximately 1500 B.C. Canals and a well at the Las Capas-Costello-King site complex indicate exploitation of both surface flows and water tables by 1200 B.C. A secondary canal branching off a primary canal and evidence of canal headgates to control diversions from a perennial river flow were found at Las Capas. Based on its calculated capacity, this late San Pedro phase canal system is estimated at 1.5–2.0 km in length, with an irrigated area of 24–38 hectares. Uncovered at the Stewart Brickyard site was a portion of an irrigated field with canals and hundreds of planting holes/water retention basins arranged in a regular, staggered pattern; associated maize remains were radiocarbon dated to 1100 B.C. With these



Figure 2. Pit structures three times larger than average houses, and interpreted as communal-ceremonial buildings, have been found at several sites dating between 800 B.C. and A.D. 50 in southeastern Arizona. Photo by Jonathan Mabry.

recent discoveries, the famous canal systems of the later Hohokam culture (ca. A.D. 550–1450) now have a local precedent, implying a long history of indigenous irrigation development in the northern Sonoran Desert.

Early Agricultural Period site locations in the Tucson Basin also imply the practice of water-table farming, flood farming, and runoff-farming. Direct radiocarbon dates demonstrate that maize was cultivated in the basin by at least 2100 B.C. Pepo squash remains dating to approximately this time have been found in McEuen Cave in southeastern Arizona, and was probably also cultivated in the Tucson Basin by then. Pollen of cotton (either wild or domesticated) found at the Valley Farms site, and charred seeds of a wild tobacco variety found at Las Capas indicate these plants were also cultivated by 1200 B.C. A possible common bean from Las Capas has also been radiocarbon dated to about that time.

### Social and Economic Changes

As the subsistence importance of agriculture increased, residential mobility decreased. In turn, agricultural production and reduced mobility were associated with the development of food storage and specialized resource procurement, increased human fertility, decreases in nutrition and health, and changes in social organization. Some archaeologists see signs of significant social shifts, including changes in territoriality, trade, male/female divisions of labor, processes of passing cultural knowledge between generations, and concepts of property, privacy, cooperation, and competition.



Some researchers argue that labor pooling by multiple families was necessary to construct the canal systems and hillside terraces dating between 1500–1200 B.C. in the desert borderlands, and this therefore represents corporate organization. A shift in the primary location of pit storage from outdoor common areas to inside houses, evident in early irrigation communities in the southern Basin and Range Province before 800 B.C., has been interpreted as reflecting a change from public to private storage and sharing of food surpluses, and perhaps the development of household private property.

The typical placement of burials within habitation areas and use of anthropomorphic figurines in domestic spaces follow worldwide patterns in neolithic/formative societies, and may reflect ancestor veneration related to the increasing importance of lineages to legitimize household property rights and inheritance. In the desert borderlands, the appearance of courtyard groups of houses, large special-function buildings, and formal cemeteries between 800–400 B.C. may represent a transition to extended family households and integration of multiple households.

### Unresolved Questions and a Diversity of Views

Debate continues about whether maize and other tropical cultigens were initially introduced to the Southwest by diffusion or by a migration of farmers from the south. Also unresolved is whether the transition to agriculture was rapid or gradual, and whether this shift was primarily a strategy for reducing subsistence risks, or for maximizing returns to subsistence efforts. The most recent interpretations variously argue for active manipulation of indigenous plants prior to the arrival of tropical cultigens; crops spreading through combinations of migration and diffusion; multiple waves of these processes introducing new crop complexes and multiple crop varieties; local domestications of native plants; local breeding of new varieties of tropical cultigens; portfolios of diverse cultivation techniques; and agricultural decision-making that simultaneously weighed risk, effort, productivity, and efficiency.

Current evidence indicates that agriculture was practiced in the region for many centuries before cultigens became a subsistence focus, before crop productivity increased through labor investments in canals and terraces, before settlements became larger and more permanent, and before the village became an important form of social organization. As in many other parts of the world, the transition to agriculture in this region seems to have occurred over a long period of time and had delayed social and economic consequences.

In contrast to a general consensus about the gradual pace of the transition to agriculture and related social and economic changes, inferences about the scale and degree of those cultural changes seem to have diverged into two camps. Based



Figure 3. Repeated occupations of the same floodplain locations by early farming groups in the desert borderlands are indicated by superimposed pithouse foundations, such as this pair dating near 500 B.C. Photo by Jonathan Mabry.

on ethnographic models of historic Southwestern native groups, some archaeologists argue that even the largest, most archaeologically complex Early Agricultural Period sites can be explained as traces of seasonal reoccupations by small groups not very invested in agriculture and not needing to pool labor for the scales of canals and terraces that have been documented.

In the eyes of others, including this author, there was considerable diversity in the relative sizes, complexities, and degrees of sedentism and agricultural dependence of early Southwestern farming communities. In this view, the archaeological patterns of some communities indicate sedentism tethered to favorable locations and significant investments in landscape modifications, corporate organization necessary to construct and maintain such infrastructure, and other watershed social and economic changes; these are seen as the basis of the village lifeways of later Southwestern cultures. Testing of these competing models will likely be a focus of the next phase of Early Agricultural Period research—a cutting edge of Southwestern archaeology.

### For Further Reading

- Barlow, K. Renee  
 2002 Predicting Maize Agriculture among the Fremont: An Economic Comparison of Farming and Foraging in the American Southwest. *American Antiquity* 67:65–88.
- Damp, Jonathan E., Stephen A. Hall, and Susan J. Smith  
 2002 Early Irrigation on the Colorado Plateau near Zuni Pueblo, New Mexico. *American Antiquity* 67:665–676.
- Diehl, Michael W. (editor)  
 2005 *Subsistence and Resource Use Strategies of Early Agricultural Communities in Southern Arizona*. Anthropological Papers No. 34. Center for Desert Archaeology, Tucson.
- Diehl, Michael W., and Jennifer A. Waters  
 2005 Aspects of Optimization and Risk during the Early Agricultural Period in Southeastern Arizona. In *Foraging Theory and the Transition to Agriculture*, edited by D. Kennett and B. Winterhalder, pp. 63–86. University of California Press, Berkeley.

- Doolittle, William E., and Jonathan B. Mabry.  
 2006 Environmental Mosaics, Agricultural Diversity, and the Evolutionary Adoption of Maize in the American Southwest. In *Histories of Maize: Multidisciplinary Approaches to the Prehistory, Biogeography, Domestication, and Evolution of Maize*, edited by John Staller, Robert Tykot, and Bruce Benz, pp. 109–121. Elsevier, San Diego.
- Hard, Robert J., José E. Zapata, Bruce K. Moses, and John R. Roney  
 1999 Terrace Construction in Northern Chihuahua, Mexico: 1150 B.C. and Modern Experiments. *Journal of Field Archaeology* 26:129–146.
- LeBlanc, Steven A.  
 2008 The Case for an Early Farmer Migration into the Greater American Southwest. In *Archaeology Without Borders: Contact, Commerce, and Change in the U.S. Southwest and Northwestern Mexico*, edited by Laurie D. Webster and Maxine E. McBrinn, pp. 107–142. University Press of Colorado, Boulder.
- Mabry, Jonathan B.  
 2005a Changing Knowledge and Ideas About the First Farmers in Southeastern Arizona. In *The Late Archaic Across the Borderlands: From Foraging to Farming*, edited by Bradley J. Vierra, pp. 41–83. University of Texas Press, Austin.  
 2005b Diversity in Early Southwestern Farming Systems and Optimization Models of Transitions to Agriculture. In: *Subsistence and Resource Use Strategies of Early Agricultural Communities in Southern Arizona*, edited by Michael W. Diehl, pp. 113–152. Anthropological Papers No. 34. Center for Desert Archaeology, Tucson.
- Mabry, Jonathan B. (editor)  
 2008 *Las Capas: Early Irrigation and Sedentism in a Southwestern Floodplain*. Anthropological Papers No. 28. Tucson: Center for Desert Archaeology, Tucson.
- Mabry, Jonathan B., John P. Carpenter, and Guadalupe Sanchez  
 2008 Archaeological Models of Early Uto-Aztecan Prehistory in the Arizona-Sonora Borderlands. In *Archaeology Without Borders: Contact, Commerce, and Change in the U.S. Southwest and Northwestern Mexico*, edited by Laurie D. Webster and Maxine E. McBrinn, pp. 155–183. University Press of Colorado, Boulder.
- Matson, R. G.  
 2002 The Spread of Maize Agriculture into the U.S. Southwest. In *Examining the Farming/Language Dispersal Hypothesis*, edited by Peter Bellwood and Colin Renfrew, pp. 341–356. McDonald Institute for Archaeological Research, Cambridge.
- Roth, Barbara J., and Andrea Freeman  
 2008 The Middle Archaic Period and the Transition to Agriculture in the Sonoran Desert of Southern Arizona. *Kiva* 73:321–353.
- Schlanger, Sarah H. (editor)  
 2002 *Traditions, Transitions and Technologies: Themes in Southwest Archaeology in the Year 2000*. University Press of Colorado, Boulder. (see chapters by Geib and Spurr, Gregory and Diehl, Huckell et al., and Roney and Hard).
- Sliva, R. Jane (editor)  
 2005 *Material Cultures and Lifeways of Early Agricultural Communities in Southern Arizona*. Anthropological Papers No. 35. Center for Desert Archaeology, Tucson.
- Smiley, Francis E.  
 2002 The First Black Mesa Farmers: The White Dog and Lolo-mai Phases. In *Prehistoric Culture Change on the Colorado Plateau: Ten Thousand Years on Black Mesa*, edited by S. Powell and F.E. Smiley, pp. 37–65. University of Arizona Press, Tucson.
- Smiley, Francis E., and Michael R. Robins (editors)  
 1997 *Early Farmers in the Northern Southwest: Papers on Chronometry, Social Dynamics, and Ecology*. Animas-La Plata Archaeological Project Research Paper No. 7. United States Department of the Interior, Bureau of Reclamation, Upper Colorado Region.
- Vierra Bradley J.  
 2008 Early Agriculture on the Southeastern Periphery of the Colorado Plateau: Diversity in Tactics. In *Archaeology Without Borders: Contact, Commerce, and Change in the U.S. Southwest and Northwestern Mexico*, edited by Laurie D. Webster and Maxine E. McBrinn, pp. 71–88. University Press of Colorado, Boulder.
- Whittlesey, Stephanie M., S. Jerome Hesse, and Michael S. Foster  
 2007 *Recurrent Sedentism and the Making of Place: Archaeological Investigations at Las Capas, A Pre Ceramic Period Farming Community in the Tucson Basin, Southern Arizona*. SWCA Cultural Resources Report No. 07-556. SWCA Environmental Consultants, Tucson.

### Volunteers: SAA Needs You Next April!

**For details and a volunteer application, please go to SAAweb ([www.saa.org](http://www.saa.org)) or contact Meghan Tyler at SAA (900 Second St. NE #12, Washington, DC, 20002-3560, phone [202] 789-8200, fax (202) 789-0284, e-mail [Meghan\\_Tyler@saa.org](mailto:Meghan_Tyler@saa.org)). Applications are accepted on a first-come, first-serve basis through February 2, 2009, so contact us soon to take advantage of this great opportunity. See you in Atlanta!**



# MONEY MATTERS

Paul D. Welch

*Paul D. Welch is the Treasurer for the Society for American Archaeology.*

**A**s banks and investment firms implode around us and Wall Street plunges to the murky deep, what is the impact on SAA's finances? To answer the question requires distinguishing between the operating money and the investments (endowments, Life Member fund, and the Reserve or "rainy day" fund).

The operating money is what the SAA needs to pay printing and mailing bills, utility bills for the DC office, and so on. This money is kept in a combination of bank accounts, short-term CDs, and a money-market fund. The bank accounts and CDs all have FDIC insurance, which now covers up to \$250,000 per account-holder per bank. Initially we had a lot more than that at our bank, and also a lot more than that in a money-market account at Smith Barney. As the financial crisis accelerated, the SAA Executive Director and I agreed that we should spread our operating money to maximize FDIC insurance coverage. About 75 percent of our operating money is now held in over one dozen short-term CDs, each from a different FDIC-insured bank. Another portion of the operating money is in a money-market fund, which now also has a federal government guarantee. The only part of our operating money not covered by federal guarantee is that portion of our main bank account over \$250,000. For unavoidable reasons, on any given day we may have \$50,000 to \$150,000 above this insurance limit at our bank. However, all the information we've seen says this bank is financially sound; in fact, the bank's stock price has actually increased since July. Overall, Executive Director Brimsek is now managing our operating money so that 90 percent or more is covered by U.S. government guarantees, and the remaining part is in a financially healthy bank.

The story on our investments is less happy from a short-term perspective, but we are not investing for the short term. Invest-

ments should be looked at not in terms of what we will earn this year or next, but in terms of what our investments will earn over a span of decades—a perspective archaeologists should be comfortable with. Our investments are designed to be less risky than the stock market overall. We invest solely in diversified mutual funds, with 70 percent of the money in bond funds and 30 percent of the money in stock funds. As concern about the subprime mortgage and collateralized debt obligation mess mounted last fall, we checked and found that our funds had very little exposure to these risky assets. We conducted similar investigations as the financial mess spread to other kinds of assets. We sought the advice of our Smith Barney consultant, and also the SAA Investment and Finance Committee, consisting of former SAA Treasurers. Throughout, the unanimous advice has been that no changes in investment strategy were necessary. As I write, the stock market is down over 40 percent from where it was a year ago, but SAA's investments are only down about 17 percent. That is still a lot of money—\$340,000—but remember that this is only a paper loss. The loss would become real if we had to sell the mutual fund shares now, but we have no need and no desire to sell assets at a loss. We will stay invested, and it is wholly reasonable to think that sooner or later the stock market will rise and this paper loss will be erased. Even though the national financial mess is real and severe, we believe that from a long-term perspective there is no reason to change our investment strategy and definitely not any reason to sell our assets at a loss.

Let me end on a positive note. In July we received the independent audit of SAA's 2007 financial statements from Watkins, Meegan, Drury & Co. Despite ever-stricter auditing standards imposed in the post-Enron era, our auditors gave us a clean report for the 2007 year. This testifies to the high professional competence of the staff in our Washington office.

SOCIETY FOR AMERICAN ARCHAEOLOGY

BALANCE SHEETS

ASSETS

	December 31,	
	2007	2006
CURRENT ASSETS		
Cash and Cash Equivalents	\$ 2,022,531	\$ 1,695,967
Accounts Receivable, Net	24,298	19,126
Pledges Receivable, Current Portion	18,105	8,910
Accrued Interest Receivable	3,076	1,905
Prepaid Expenses, Current Portion	60,767	59,771
Total Current Assets	<u>2,128,777</u>	<u>1,785,679</u>
PREPAID EXPENSES, Net of Current Portion	-	2,160
PLEDGES RECEIVABLE, Net of Current Portion	72,485	81,677
INVESTMENTS	1,742,243	1,497,928
PROPERTY AND EQUIPMENT, Net	60,758	48,051
DEPOSITS	<u>6,076</u>	<u>31,576</u>
	<u>\$ 4,010,339</u>	<u>\$ 3,447,071</u>

LIABILITIES AND NET ASSETS

CURRENT LIABILITIES		
Accounts Payable and Accrued Expenses	\$ 22,650	\$ 39,557
Deferred Revenue		
Membership Dues, Current Portion	465,094	428,538
Subscriptions	162,089	149,365
Grants and Cooperative Agreements	-	23,041
Meetings and Other	379,397	319,907
	<u>1,006,580</u>	<u>920,851</u>
Total Current Liabilities	<u>1,029,230</u>	<u>960,408</u>
DEFERRED MEMBERSHIP DUES, Net of Current Portion	<u>38,512</u>	<u>40,791</u>
Total Liabilities	<u>1,067,742</u>	<u>1,001,199</u>
NET ASSETS		
Unrestricted		
Undesignated	1,685,990	1,426,152
Board-Designated	532,330	427,828
	<u>2,218,320</u>	<u>1,853,980</u>
Temporarily Restricted	115,278	87,221
Permanently Restricted	608,999	504,671
Total Net Assets	<u>2,942,597</u>	<u>2,445,872</u>
	<u>\$ 4,010,339</u>	<u>\$ 3,447,071</u>



SOCIETY FOR AMERICAN ARCHAEOLOGY  
STATEMENTS OF ACTIVITIES

	2007				2006			
	Year Ended December 31,							
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
<b>REVENUE AND SUPPORT</b>								
Membership Dues	\$ 712,225	\$ -	\$ -	\$ 712,225	\$ 655,986	\$ -	\$ -	\$ 655,986
Annual Meeting	568,049	-	-	568,049	476,361	-	-	476,361
Publications	283,828	-	-	283,828	287,282	-	-	287,282
Public Programs and Services	7,788	-	-	7,788	25,035	-	-	25,035
Organization and Administration	240,910	31,057	104,328	376,295	229,329	22,371	124,553	376,253
Member Programs and Services	16,204	-	-	16,204	7,887	-	-	7,887
Awards	5,016	-	-	5,016	19,085	-	-	19,085
Net Assets Released from Restriction -								
Public Programs and Services	3,000	(3,000)	-	-	990	(990)	-	-
Total Revenue and Support	1,837,020	28,057	104,328	1,969,405	1,701,955	21,381	124,553	1,847,889
<b>EXPENSES</b>								
Program Services								
Membership	120,450	-	-	120,450	134,859	-	-	134,859
Annual Meeting	320,390	-	-	320,390	263,902	-	-	263,902
Publications	342,010	-	-	342,010	322,166	-	-	322,166
Public Programs and Services	194,317	-	-	194,317	200,007	-	-	200,007
Member Programs and Services	157,261	-	-	157,261	175,504	-	-	175,504
Awards	13,777	-	-	13,777	20,578	-	-	20,578
Supporting Services	1,148,205	-	-	1,148,205	1,117,016	-	-	1,117,016
Management and General	292,588	-	-	292,588	372,911	-	-	372,911
Membership Development	31,887	-	-	31,887	32,768	-	-	32,768
Fundraising	-	-	-	-	580	-	-	580
Total Expenses	324,475	-	-	324,475	406,259	-	-	406,259
	1,472,680	-	-	1,472,680	1,523,275	-	-	1,523,275
<b>CHANGE IN NET ASSETS</b>	364,340	28,057	104,328	496,725	178,680	21,381	124,553	324,614
<b>NET ASSETS, Beginning of Year</b>	1,853,980	87,221	504,671	2,445,872	1,675,300	65,840	380,118	2,121,258
<b>NET ASSETS, End of Year</b>	\$2,218,320	\$ 115,278	\$ 608,999	\$2,942,597	\$1,853,980	\$ 87,221	\$ 504,671	\$2,445,872



## POSITIONS OPEN

**POSITION: ASSOCIATE OR FULL PROFESSOR OF ARCHAEOLOGY**

**LOCATION: PROVIDENCE, RI**

Brown University invites applications for a senior (associate or full) professor in the field of Mediterranean or Near Eastern archaeology. Applications are welcome from scholars interested in the complex societies of any part of this broad geographic expanse. Candidates are sought with expertise and interests complementary to the current faculty, especially but not exclusively in the following areas: archaeology and media, archaeology and text, landscape archaeology, material culture studies, and public humanities and cultural heritage. Candidates with active fieldwork projects, and strong technical skills, are particularly welcome. Candidates must have an outstanding record of scholarly achievement and leadership, as well as a proven record of publication, outreach, and service commensurate with their career stage. For all ranks, excellence in, and commitment to, undergraduate and graduate teaching are essential. The successful candidate will be expected to make major contributions to the ongoing development of the recently established Joukowsky Institute for Archaeology and the Ancient World. Candidates should submit a letter of application, a curriculum vita, and five names of referees with contact information (including email, if possible) by January 5, 2009; referees will be contacted directly by the Search Committee. Applications received by January 5, 2009 will receive full consideration. For further information or to apply, write to: Professor Susan E. Alcock, Chair, Search Committee, Joukowsky Institute for Archaeology and the Ancient World, Brown University, Box 1837, Providence, RI 02912.

**POSITION: DISTINGUISHED SENIOR CLASSICAL ARCHAEOLOGIST**

**LOCATION: BOSTON, MA**

The Department of Archaeology at Boston University seeks a distinguished senior Classical Archaeologist to fill the James R. Wiseman Chair of Archaeology, an endowed professorship created at Boston University in honor of the founding chairman of the Department of Archaeology (pending budgetary approval). The ideal candidate will be hired as professor with tenure effective September 1, 2009, and will have substantial experience in field research and excellence in teaching; regional and specialization open. Application letter, curriculum vita, published paper or sample of writing and the names of three referees should be sent by December 1, 2008 to Professor Ricardo J. Elia, Boston University, Department of Archaeology, 675 Commonwealth Avenue, Boston, MA 02215. AA/EOE

**POSITION: ASSISTANT PROFESSOR**

**LOCATION: TUSCALOOSA, AL**

The University of Alabama invites applications for an entry-level tenure-track position in archaeology with research interests in Latin America, broadly conceived to include the Caribbean, who will contribute to our doctoral program in the archaeology of complex societies in the Americas. The position will begin August 16, 2009. Candidates should have expertise that complements that of the current faculty, including strong qualifications in advanced quantitative methods and GIS. The successful candidate will be expected to teach undergraduate and graduate courses, mentor graduate students, and pursue an active program of field research supported by extramural funds, involving students in the research, and leading to publications contributing to theoretical and comparative literature in anthropological

archaeology. Evidence of teaching excellence is required. To apply, go to <http://facultyjobs.ua.edu> and complete the online application. Attach a letter of application and curriculum vita. Send three letters of recommendation, examples of publications (PDF format is desirable), and teaching evaluations, if available, directly to Jim Knight ([vknight@as.ua.edu](mailto:vknight@as.ua.edu)), Chair, Archaeology Search Committee, Department of Anthropology, Box 870210, University of Alabama, Tuscaloosa, AL 35487. Review of applications will begin October 24, 2008, and will continue until the position is filled. The University of Alabama is an Affirmative Action/Equal Opportunity Employer. Applications from women and minorities are encouraged.

**POSITION: ASSISTANT PROFESSOR**

**LOCATION: ANCHORAGE, AK**

The Department of Anthropology of the University of Alaska Anchorage seeks an archaeologist, Ph.D. in hand by August 9, 2009, for a full-time, tenure-track position as Assistant Professor of Anthropology. The successful applicant will be required to teach three courses per semester. These will include undergraduate courses on introductory anthropology, fundamentals of archaeology, and the rise of civilization, as well as advanced undergraduate and graduate courses on historical and northern archaeology. Also required is the ability to teach courses in archaeological theory and in contemporary field and lab techniques in archaeology. Demonstrated experience in teaching and in historical archaeology; the ability to teach a course in northern ethnography; and knowledge of geographical information systems (GIS) or other appropriate technical or data management/analysis expertise is also preferred. The candidate will demonstrate the capability of continuing or developing an active

research program in northwestern North America. The appointment will include the UAA tripartite mission of teaching, research, and service, including both undergraduate and graduate student advising. Closing date is February 5, 2009. Applicant questions concerning the position posting may be addressed to Christine Hanson, by email at [afclh@uaa.alaska.edu](mailto:afclh@uaa.alaska.edu). Additional information about the position can also be found at: [www.uakjobs.com/applicants/Central?quickFind=64779](http://www.uakjobs.com/applicants/Central?quickFind=64779)

**POSITION: ASSISTANT PROFESSOR**

**LOCATION: LAWRENCE, KS**

The University of Kansas is seeking an Assistant Professor in Anthropology for a tenure-track position to begin as early as August 18, 2009. Requirements include a Ph.D. in Anthropological Archaeology expected by start date of appointment, geographical specialization in Holocene cultures of the North American Great Plains or adjacent areas, an ongoing archaeology research program, demonstrated teaching experience, quantitative research skills, publications, and relevant archaeological field experience in North America. The successful candidate will teach two courses per semester in undergraduate and graduate level archaeology, develop an active research program in Holocene archaeology, and perform standard advising and service in the Department and University. First consideration will be given to applications received by October 27, 2008. Salary range is competitive. For full position announcement, see <http://www.clas.ku.edu/employment/>. Send a letter of application that includes a statement of research plans and a summary of teaching philosophy and experience. Also include a full curriculum vita, an example of scholarly work, and list of three references with contact information to: Jack L. Hofman, Search Committee Chair, Department of Anthropology, 1415 Jayhawk Blvd, Room 622 Fraser Hall, Lawrence, KS 66045-7556. Direct

further inquiries to Jack Hofman, [hofman@ku.edu](mailto:hofman@ku.edu). EO/AA Employer

**POSITION: ASSISTANT PROFESSOR**

**LOCATION: EDWARDSVILLE, IL**

The Anthropology Department invites applications for a tenure-track Assistant Professor with research specialization in archaeology of the Midwest or Eastern North America. Ph.D. required at time of employment, beginning August 2009. Expectations of research, service, and quality undergraduate teaching and mentorship. Courses to be taught will include introduction to anthropology (4 fields) and an archaeological field school to be taught locally. Other desired courses could include North American prehistory, world prehistory, historical archaeology, cultural resource management, artifact analysis, paleoethnobotany, or geoarchaeology. Applications close January 1, 2009. Send vita, transcripts, contact information for three references, and *separate* one-page statements of teaching interests/philosophy and research interests to: Anthropology Chair, Box 1451s, Southern Illinois University Edwardsville, Edwardsville, IL 62026-1451. SIUE is a state university—benefits under state sponsored plans may not be available to holders of F1 or J1 visas. Applicants may be subject to a background check prior to offer of employment. SIUE is an affirmative action and equal opportunity employer.

**POSITION: ASSISTANT PROFESSOR**

**LOCATION: EVANSTON, IL**

Northwestern University, Department of Anthropology announces a tenure track Assistant Professor position in the archaeology of complex societies, starting Fall 2009. Geographical area and methodological focus are open. Research on either prehistoric or historic periods will be considered. Preference will be given to candidates whose research complements existing faculty specializations. Candidates should have a strong commitment to active field research, graduate teaching and mentor-

ing, and a four-field approach in anthropology. Applications received by October 29, 2008 will be given special consideration. Send letter of application, vita, and names of three referees to: Dr. Timothy Earle, Archaeology Search Committee Chair, Department of Anthropology, Northwestern University, 1810 Hinman Ave, Evanston, IL, 60201-1310. Northwestern University of an Affirmative Action, Equal Opportunity Employer. Women and minorities are encouraged to apply. Hiring is contingent upon eligibility to work in the United States.

**POSITION: ASSISTANT PROFESSOR**

**LOCATION: MARQUETTE, MI**

Northern Michigan University's Department of Sociology and Social Work invites applications for an anticipated full-time tenure-track, assistant professor in archaeology to begin in August 2009. NMU seeks a broadly trained, four-field anthropological archaeologist for a tenure-track position beginning in the fall of 2009. Minimum requirements include a doctorate in Anthropology, completed by August 2009. There is a strong preference for candidates who have a commitment to undergraduate teaching, as well as professional work experience in indigenous cultural resource management and archaeologically oriented heritage management studies with First Nations communities. Other preferences include: expertise in the archaeology and physical anthropology of North America and the Great Lakes; and the ability to teach introductory archaeology classes, introductory physical anthropology, ethics and cultural resource management, and archaeological theory and method. RANK: Assistant Professor. MINIMUM QUALIFICATIONS: Ph.D. degree in Anthropology. SALARY: Commensurate with experience. NMU offers competitive compensation and a very generous benefits package. POSITION BEGINS: August, 2009. DOCUMENT REQUIRED: Documents required in hard copy are: (1) a letter of application

---

## POSITIONS OPEN

outlining qualifications, specifically addressed to the position description; (2) curriculum vita; (3) evidence of teaching effectiveness; (4) copies of one or more recent publications, if available; and, (5) a list of at least three references. Please do not have reference letters sent until requested. All material (preferably, in a single package) should be mailed to: Northern Michigan University, Anthropology Search Committee, Dr. Alex Carroll, Chair, 1401 Presque Isle Ave., Marquette, MI 49855. APPLICATION DEADLINE: Review of completed application materials will begin November 15, 2008 and continue until the position is filled. Northern Michigan University over 9,500 students, and is located in Marquette, Michigan, on the south shore of Lake Superior, the greatest freshwater lake in the world. NMU is proud of its high-tech campus: wireless internet access all around and computer-friendly classrooms equipped with computer projectors. Students receive laptops upon enrollment. Marquette County has affordable housing, a very reasonable cost of living, excellent health care and educational facilities,

and easy connections from the local airport to Chicago, Detroit, and Minneapolis. Information about the area may be found at [www.marquettecountry.org](http://www.marquettecountry.org). Additional information about the university may be found at [www.nmu.edu](http://www.nmu.edu).


### POSITION: ASSISTANT PROFESSOR

#### LOCATION: MONTREAL, QUEBEC

The Department of Anthropology and the Department of East Asian Studies at McGill University are seeking to fill a full-time, tenure-track joint appointment in Chinese Archaeology at the assistant professor level to begin August 1, 2009. The Departments are especially interested in applicants whose research centers on material expressions of social identity that cut across boundaries, including class, gender/sexuality, age, ethnicity, or kinship, as expressed in the complex societies of pre-imperial and/or imperial China. Candidates should be prepared to teach undergraduate and graduate courses in East Asian archaeology, contemporary archaeological theory, Chinese material culture, and/or epigraphy; to develop a research program in China and have a strong com-

mitment to research and publication; and to be committed to developing the discipline of historical archaeology. The position has been made possible by a grant by the Henry Luce Foundation. A Ph.D. in hand is expected at time of appointment. For full consideration, please submit: (1) a letter of application; (2) your curriculum vita; (3) a one-page statement of teaching philosophy; and (4) the names, addresses, phone numbers, and email addresses, of three referees by November 1, 2008 to Professor Griet Vankeerberghen, Chinese Archaeology Search Committee Chair, Department of East Asian Studies, McGill University, 3434 McTavish, Montreal, Quebec CANADA H3A 1X9. All qualified applicants are encouraged to apply; however, in accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. McGill University is an English language institution; however, knowledge of French would be considered an asset.

---

ROBINSON, from page 26 

Sanger, David

- 1973 *Cow Point: An Archaic Cemetery in New Brunswick*. Archaeological Survey of Canada Paper 12. National Museum of Man, Ottawa.
- 1974 Recent Meetings on Maine-Maritimes Archaeology: A Synthesis. *Man in the Northeast* 7:128–129
- 2006 An Introduction to the Archaic of the Maritime Peninsula: The View from Central Maine. in *The Archaic of the Far Northeast*, edited by David Sanger and M.A.P. Renouf, pp. 221–252. University of Maine Press, Orono.

Sanger, David, and M.A.P. Renouf (editors)

- 2006 *The Archaic of the Far Northeast*, University of Maine Press, Orono.

Spiess, Arthur and Robert Lewis

- 2001 *The Turner Farm Fauna: 5000 Years of Hunting and Fishing in Penobscot Bay, Maine*. Occasional Publications in Maine Archaeology 11. The Maine State Museum, The Maine Historic Preservation Commission and The Maine Archaeological Society, Augusta.

Wabanaki Program of the American Friends Service Committee

- 1989 *The Wabanakis of Maine and the Maritimes: A resource book about Penobscot, Passamaquoddy, Maliseet, Micmac and Abenaki Indians*. 2002 Edition, Wabanaki Program of the American Friends Service Committee. Philadelphia.

Wiley, Gordon R., and Philip Phillips

- 1958 *Method and Theory in American Archaeology*. University of Chicago Press, Chicago.





## NEWS & NOTES

### **N**ative American Scholarships Committee News and Update.

Over the last decade, the Society for American Archaeology has awarded 11 Arthur C. Parker Scholarships and 31 National Science Foundation Scholarships to Native American and Native Hawaiian students and professionals. These scholarships have provided a range of training opportunities in archaeological methods, including fieldwork, analytical techniques, and curation.

The SAA Arthur C. Parker Scholarship is named in honor of the first President of the SAA, who served from 1935 to 1936. Parker was of Seneca ancestry through his father's family, and he spent his youth on the Cattaraugus Reservation in New York. The SAA Parker Scholarship provides \$4,000 for one scholarship recipient. Three additional scholarships of \$4,000 each are funded by the NSF Scholarships for Archaeological Training for Native Americans and Native Hawaiians program. Intended for current students—high school seniors, college undergraduates, and graduate students—and personnel from Native cultural preservation programs, these scholarship awards may be used to cover tuition and expenses for training programs and research projects. Native Americans and Pacific Islanders from the U.S., including U.S. Trust Territories, and Indigenous peoples from Canada are eligible for these awards. The deadline for the 2009 competition is **December 15, 2008**. Application materials may be found at: <https://ecommerce.saa.org/saa/staticcontent/staticpages/adminDir/A-ACPNSFS.cfm>, or typing "SAA Native American Scholarships" into Google.

To in part fund these scholarships, the Committee presents a silent auction at

the SAA's annual meeting. For 2009, some great auction items have already been donated, but the Committee is always anxious to receive books, art objects, gift certificates, and any other item that will bring in potential buyers. To donate for next year, please contact [jhutira@northlandresearch.com](mailto:jhutira@northlandresearch.com). In Atlanta, be sure to stop by and place a bid: it's a great way to contribute to the scholarships fund and to get some great things too! Finally, the Committee is always anxious to find new members. If you'd like to get involved, or if you have any general questions or inquiries, please contact the Committee's Chair, Ann Tippitt, at [atippitt@carolina.rr.com](mailto:atippitt@carolina.rr.com).

**NSF Funded Awards for Archaeometry at the Field Museum.** The Elemental Analysis Facility (EAF) at the Field Museum invites proposals for a limited number of NSF funded awards for archaeometry projects requiring the use of LA-ICP-MS. Grants will be available for three years (2008-2011). The EAF hosts a Varian inductively coupled plasma-mass spectrometer (ICP-MS) and two laser ablation systems: a New Wave UP213 laser ablation (LA) system with a 5 cm x 6 cm chamber and a New Wave UP266, with an experimental adaptable chamber, dedicated to the study of large objects. Complementing the ICP-MS instrumentation, the EAF also hosts a LEO EVO 60 XVP Scanning Electron Microscope with an environmental chamber equipped with an Oxford Inca Energy Dispersive Spectroscopy system, two portable XRF systems and a digital imaging petrographic microscope. This NSF funded program aims at facilitating the access of the EAF to researchers and students by offering funding to offset LA-ICP-MS analytical costs. Researchers should indicate whether they will be in residence at the Museum to run their samples, or whether they are requesting Museum

staff to undertake the analysis. In some cases, students from outside the Chicago area are eligible for limited funding for travel and accommodation. Students requesting travel funding should submit a travel budget. A panel including outside and Field Museum scholars will review proposals twice a year. All parties who wish to undertake a collaborative project in the lab should forward a short proposal (2-4 page) for consideration. The proposal should address the research problem, the size of the specimens, and the type, number, and contexts of the samples, whether the scholar will be in residence and travel budget if appropriate. Curriculum vitae for the principal collaborator(s) should also be included. Complete proposals must be received by March 31 and September 30, each year. You should inquire with Laure Dussubieux, lab manager, before submitting any proposal at [ldussubieux@fieldmuseum.org](mailto:ldussubieux@fieldmuseum.org). For additional information, please visit: <http://www.fieldmuseum.org>.

**Sixth Annual Tulane Maya Symposium and Workshop.** Please join us the weekend of February 6—8, 2009 for the Sixth Annual Tulane Maya Symposium and Workshop, hosted by Tulane University's Stone Center for Latin American Studies. Our theme this year is Maya Calendars and Creation. Through a series of lectures, workshops, and a roundtable discussion, specialists at next year's symposium will discuss our current understanding of the intricacies of Maya calendars and the relevance of the upcoming completion of the final *baktun* of the current era within the worldview of the ancient and contemporary Maya. Divinatory almanacs and references to Maya creation mythology in the texts and iconography of pre-Columbian codices and the Colonial *Books of Chilam Balam* are among the topics that will be considered, with dis-

cussions centered on the role of creation stories and foundation events in Classic, Postclassic, and contemporary Maya rituals. With guest speakers from the fields of archaeology, art history, epigraphy, ethnohistory, linguistics, and archaeoastronomy, the 2009 symposium promises to be a memorable weekend spent exploring and discussing Maya creation mythology, divination and prophecy, and calendar systems. For further information about the program, please contact Denise Woltering (crrts@tulane.edu), or visit <http://stonecenter.tulane.edu/MayaSymposium/> for the 2009 preliminary program, as well as registration and lodging information and a retrospective of the 2008 symposium. We hope to see you in New Orleans next February for the Sixth Annual Tulane Maya Symposium and Workshop!

**N**ational register Listings. The following archaeological properties were listed in the National Register of Historic Places during the third quarter of 2008. For a full list of National Register listings every week, check "Weekly List" at <http://www.nps.gov/nr/>

- Florida, Volusia County. *Airport Clear Zone Archeological Site (Archeological Resources of the 18<sup>th</sup>-Century Smyrnea Settlement of Dr. Andrew Turnbull MPS)*. Listed 7/10/08.
- Florida, Volusia County. *Blanchette Archeological Site (Archeological Resources of the 18<sup>th</sup>-Century Smyrnea Settlement of Dr. Andrew Turnbull MPS)*. Listed 7/10/08.
- Florida, Volusia County. *First Presbyterian Church Archeological Site (Archeological Resources of the 18<sup>th</sup>-Century Smyrnea Settlement of Dr. Andrew Turnbull MPS)*. Listed 7/10/08.
- Florida, Volusia County. *Grange Archeological Site (Archeological Resources of the 18<sup>th</sup>-Century Smyrnea Settlement of Dr. Andrew Turnbull MPS)*. Listed 7/10/08.
- Florida, Volusia County. *Hawks Archeological Site (Archeological*

*Resources of the 18<sup>th</sup>-Century Smyrnea Settlement of Dr. Andrew Turnbull MPS)*. Listed 7/10/08.

- Florida, Volusia County. *Janet's Archeological Site (Archeological Resources of the 18<sup>th</sup>-Century Smyrnea Settlement of Dr. Andrew Turnbull MPS)*. Listed 7/10/08.
- Florida, Volusia County. *Old Fort Park Archeological Site (Archeological Resources of the 18<sup>th</sup>-Century Smyrnea Settlement of Dr. Andrew Turnbull MPS)*. Listed 7/10/08.
- Florida, Volusia County. *Old Stone Wharf Archeological Site (Archeological Resources of the 18<sup>th</sup>-Century Smyrnea Settlement of Dr. Andrew Turnbull MPS)*. Listed 7/10/08.
- Florida, Volusia County. *Sleepy Hollow Archeological Site (Archeological Resources of the 18<sup>th</sup>-Century Smyrnea Settlement of Dr. Andrew Turnbull MPS)*. Listed 7/10/08.
- Florida, Volusia County. *Turnbull Colonists' House No. 2 Archeological Site (Archeological Resources of the 18<sup>th</sup>-Century Smyrnea Settlement of Dr. Andrew Turnbull MPS)*. Listed 7/10/08.
- Florida, Volusia County. *White-Fox House Archeological Site (Archeological Resources of the 18<sup>th</sup>-Century Smyrnea Settlement of Dr. Andrew Turnbull MPS)*. Listed 7/10/08.
- New York, Clinton and Essex Counties. *SPITFIRE (gunboat)*. Listed 7/24/08.
- Virginia, Pulaski County. *Spring Dale*. Additional Documentation Approved 7/02/08.
- Wisconsin, Jefferson County. *Carcajou Point Site (Boundary Increase II)*. Listed 8/13/08



## CALENDAR

2009

### FEBRUARY 6–8

**Sixth Annual Tulane Maya Symposium and Workshop** will take place in New Orleans. For further information about the program, please contact Denise Woltering (crrts@tulane.edu), or visit our website at <http://stonecenter.tulane.edu/MayaSymposium/> for the 2009 preliminary program, as well as registration and lodging information.

### MARCH 22–26

**The 37th Annual Conference on Computer Applications to Archaeology (CAA)** will take place at the Colonial Williamsburg Foundation in Williamsburg, Virginia. Call for Papers and Proposals for Sessions, Workshops, and Roundtables: Deadline: October 15, 2008. For full information, please see the conference web site at [www.caa2009.org](http://www.caa2009.org).

### APRIL 22–26, 2009

**74th Annual Meeting of The Society for American Archaeology** will be held in Atlanta, Georgia. For more information, please visit SAAweb at <http://www.saa.org/meetings> and watch future issues of *The SAA Archaeological Record*.



# Give the SAA a Gift on its 75th!

## CRM Firms are Leaders in SAA Endowment Campaign

As we work to add \$500,000 to the SAA endowment funds by 2010, cultural resource management firms across the country have stepped up to play a significant role in meeting that goal. The eight CRM Firm Leadership Donors listed below have contributed a total of \$67,500 to the campaign—over 20% of the entire \$320,000 raised as of October 2008! Our sincere appreciation goes to these firms' owners and staff members for their generous support.

### **\$20,000 and above:**

—Cultural Resource Analysts, Inc., Lexington, KY

### **\$10,000–\$19,999:**

—Alpine Archaeological Consultants, Inc., Montrose, CO

—Desert Archaeology, Inc., Tucson, AZ

—Statistical Research, Inc., Tucson, AZ

### **\$5,000–\$9,999:**

—Commonwealth Cultural Resources Group, Inc., Jackson, MI

—William Self Associates, Orinda, CA

### **\$2,500–\$4,999**

—EDAW, San Diego, CA

—Soil Systems, Inc., Phoenix, AZ



*CRAI personnel excavating one of many sites in advance of the Avenue of the Saints Project, Missouri Department of Transportation, Lewis County, Missouri.*

## Donor Profile:

### **Cultural Resource Analysts, Inc.**

Over the past 25 years, **Cultural Resource Analysts, Inc.** (CRAI) has grown to employ more than 75 professionals working from offices in West Virginia, Ohio, Illinois, and Colorado, in addition to maintaining its corporate headquarters in Lexington, Kentucky. With over 350 years of combined experience, CRAI specializes in historic, prehistoric, and industrial archaeology; bioarchaeology; paleoethnobotany; zooarchaeology; architectural history; and various special materials analyses. CRAI is also a pioneer in the field of geophysical archaeology.

Often conducting large-scale, concurrent projects across the nation, CRAI serves government agencies, non-profit organizations, and small to international entities in the private sector. CRAI upholds a commitment to make substantial methodological and theoretical contributions to the discipline of archaeology within the framework of a compliance-based business.

## Join Us!

As the campaign to “Give the SAA a Gift on its 75th” enters its final two years, now is the time to make your own statement of support of the SAA’s efforts on behalf of archaeology across the country through a generous gift or pledge to the 75th Anniversary Campaign. Join our generous CRM leadership donors and the more than 500 other SAA members who have already become donors by making your gift on-line at [www.saa.org](http://www.saa.org). Contact Tobi Brimsek at 202-789-8200 or [tobi\\_brimsek@saa.org](mailto:tobi_brimsek@saa.org) with any questions.



*CRAI personnel working on the Rockies Express Pipeline, Pike County, Illinois, just after Hurricane Ike paid a visit. The two meter deep excavation block was completely filled with rain water.*

## NEW ONLINE MANUSCRIPT SUBMISSION SYSTEM GOES LIVE!

### *Introducing Editorial Manager®*

The Society for American Archaeology is pleased to announce the launch of a new online manuscript submission and tracking system, Editorial Manager®, for its two journals: *American Antiquity* and *Latin American Antiquity*. Editorial Manager is a Web-based manuscript submission and peer review system developed by Aries Systems Corporation for scholarly journals, reference works, and conference proceedings; more than 3,000 publications currently use workflow solutions from Aries Systems.

Editorial Manager is simple to use, and tutorials and instructions are available to acquaint authors and reviewers with the procedures. Using the system, authors submit original and revised manuscripts, editorial staff send manuscripts out for peer review, reviewers conduct reviews and return comments, and editors make final decisions.

Authors are now required to use Editorial Manager for all submissions of new manuscripts.

For *American Antiquity*, the system can be accessed at <http://www.editorialmanager.com/aq>.

For *Latin American Antiquity*, the system can be accessed at <http://www.editorialmanager.com/laq>.



SOCIETY FOR AMERICAN ARCHAEOLOGY  
900 Second Street NE #12  
Washington DC 20002 USA

Non-profit Org.  
U.S. Postage  
PAID  
St. Joseph, MI  
Permit 38