



GLYPHS

The Monthly Newsletter of the
Arizona Archaeological and Historical Society
An Affiliate of the Arizona State Museum, University of Arizona
Founded in 1916

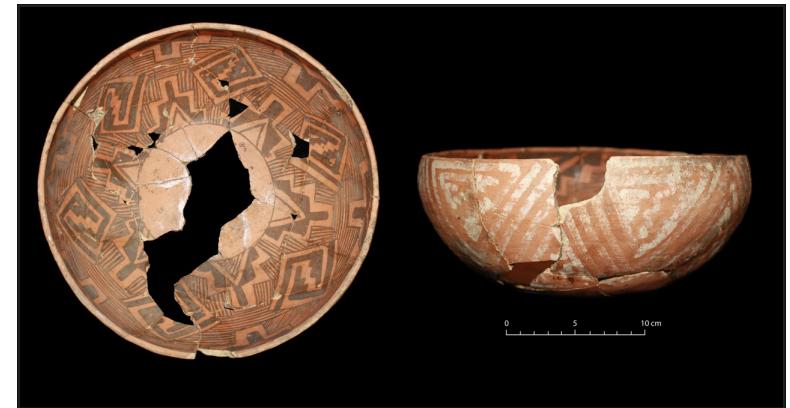
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St. Johns Polychrome bowl from the Scribe S site in the El Morro Valley, New Mexico.

Next General Meeting: May 21, 2012
7:30 p.m., Duval Auditorium, University Medical Center
www.az-arch-and-hist.org

PRESIDENT'S MESSAGE

 It's been nearly a year since I began serving as president of the society, and how quickly that year has passed. You've noticed, I'm sure, how every year goes more quickly than the last, no matter what you're doing.

I have a simple theory, albeit probably not an original one, about why this is so: the older you get, the smaller a portion of your overall life a given period of time is. When you're 10 years old, for example, a year is 10 percent of what you've lived, and so that year seems like a substantial part of your life, and maybe by extension, the things that happen that year tend to have an outsized influence on who you are in years to come.

By comparison, when you're, say, 50 years old, a year is a mere 2 percent of your life, and it passes in a relative flash. And the things that happen that year might be consequential, but plenty of other consequential things have already happened in all those previous years to temper your perception.

Archaeologists have a special relationship with time, and people new to archaeology must be surprised when they first hear how archaeologists toss phases and periods and eras around, readily glossing over gaps in the data and assuming, for example, that a long span of years marked by a lack of change in one cultural detail (say, a pottery style) meant a similar lack of change in ev-

erything else about the culture in question.

We often take pains to date the things we find, knowing what a difference a reliable date can make in our interpretations, yet we're often stuck with describing things in uncomfortably broad strokes. We might be elated to take an archaeological period long considered to span 200 years and suddenly find reason to split it into two periods of 100 years each, which means we can start talking about how the first century differed from the one that followed.

Not to take any such advance lightly, but I wonder how many of us would be content to take a similarly sized chunk of our own cultural tradition and treat it as a homogeneous unit. Take the twentieth century, for example. How much could we really say about the twentieth century if we were unable to make any chronological distinctions within those 100 eventful years? We could say a few things about how it compared to the century that came before it, but think of what we couldn't say.

Maybe we can comfort ourselves by deciding that the twentieth century and our modern, rapidly evolving, technological life provide a poor basis for comparison with the smaller scale, nonindustrial cultures archaeologists usually study. But that goes against my anthropological instinct, which says that, at some level, all cultures at all times have

certain, important things in common, one of which is the tendency to change, and to change in important ways that are not always reflected in the material things left behind for archaeologists to study.

For example, culture X might have used the same pottery, the same stone tools, the same style of house, and so on, for 100 years (or 50 years, or 200 years), but does that mean nothing changed in that period? I suppose it all depends on your perspective. If you think that pottery, stone tools, and architecture are the things that matter, or that these things are linked in some essential way with the other aspects of a culture that do matter, then not much changed. If you're the people living in that time and place, the people who came and went and lived the kinds of social lives lived by people anywhere, things undoubtedly changed.

The modern era does have its peculiarities, and so many of them are based in evolving technology. We're all familiar with the astonishing rate at which technology outdoes itself: today's latest and greatest electronic device is a scorned relic a few months later. Surely no part of our mundane material lives—our pottery and stone tools—will survive even this decade without radical change. But all that

technology actually seems to work against obsolescence in other parts of our lives.

A good example is the popular music my sons and other kids their age listen to, on devices I never dreamed of at their age. They listen to plenty of recent stuff that I can't recognize or tolerate, but they also listen to a lot of the very same stuff I listened to when I was their age, 35 or 40 years ago, and they do it without a trace of irony. It amazes me, because when I was a teenager I would have shuddered at the thought of listening to popular music from 40 years earlier. I wish I could say that the longevity of music from the 1970s is purely a function of quality, but I'm sure it has more to do with the universal and easy availability of multiple modes of recorded music, made possible by technological evolution.

The same can be said of movies, television, literature, and art. It's an interesting counter-example to the idea that technology only begets more technology and all that is old is left behind. Call it the hypercuration of popular culture. And I just checked: hypercuration has already been coined. If you capitalize it, it's already a trademark.

—Scott O'Mack, President

GLYPHS: Information and articles to be included in *Glyphs* must be received by the 10th of each month for inclusion in the next month's issue. Contact me, Emilee Mead, at emilee@desert.com or 520.881.2244 (phone), 520.909.3662 (cell), 520.881.0325 (FAX).

AAHS HAPPENINGS

TOPIC OF THE MAY 21 GENERAL MEETING

Identity and Social Transformation across the Prehispanic Cibola World

by Matthew A. Peeples

Since the early days of anthropological archaeology in the Southwest, archaeologists have been fundamentally interested in relating rapid changes in settlement and material culture to transformations in cultural identity. In this talk, using data from the Cibola region of the U.S. Southwest, I examine changes in the nature and scale of social identification across a major period of demographic and social upheaval (A.D. 1150-1325) marked by a shift from dispersed hamlets, to clustered villages, and eventually, to a small number of large nucleated towns. This transformation in settlement organization entailed a fundamental reconfiguration of the relationships among households and communities across much of the Southwest.

This study draws on contemporary social theory focused on political mobilization and social movements to investigate how changes in the process of social identification can influence the potential for such widespread and rapid transformations. This framework suggests that social identification can be divided into two primary modes; relational identification based on networks of

interaction among individuals, and categorical identification based on active expressions of affiliation with social roles or groups to which one can belong. Importantly, trajectories of social transformations are closely tied to the interrelationships between these two modes of identification. By documenting changes in the nature of relational and categorical connections through time, I argue that the rapid social changes occurring in the Cibola region were governed by similar dynamics to well-documented contemporary social transformations. These broad similarities have major implications for considerations of the historical ubiquity of social movements in general.

Suggested Reading:

- Diani, Mario, and Doug McAdams (editors)
2003 *Social Movements and Networks*. Oxford University Press, Oxford.
- Duff, Andrew I., and Gregson Schachner
2007 Becoming Central. In *Hinterlands and Regional Dynamics in the Ancient Southwest*, edited by A. P. I. Sullivan and J. M. Bayman, pp. 185-200. University of Arizona Press, Tucson.

- Huntley, Deborah L., and Keith W. Kintigh
2004 Archaeological Patterning and the Organizational Scale of Late Prehistoric Settlement Clusters in the Zuni Region of New Mexico. In *The Protohistoric Pueblo World: A.D. 1275-1600*, edited by E. C. Adams and A. I. Duff, pp. 62-74. University of Arizona Press, Tucson.
- Peeples, Matthew A.
2011 Identity and Social Transformation in the Prehispanic Cibola World: A.D. 1150-1325. Ph.D. dissertation, Arizona State University, Tempe. <http://www.mattpeeples.net/Peeples_2011.pdf>.
- Polletta, Francesca, and James M. Jasper
2001 Collective Identity and Social Movements. *Annual Review of Sociology* 27:283-305.

Speaker Matthew Peeples has been involved in archaeological research in the Southwestern U.S., primarily focused on the Zuni/Cibola and Mimbres regions of Arizona and New Mexico, for more than 10 years. He recently received his Ph.D. in Anthropology from Arizona State University, and is currently a post-doctoral research associate working on the National Science Foundation-supported Southwest Social Networks Project at the University of Arizona and Archaeology Southwest (formerly the Center for Desert Archaeology). His research interests are largely regional in scope, in particular, a focus on applying methods and models from the broader social sciences to comparative archaeological research. The research covered in this lecture was funded through a National Science Foundation Dissertation Improvement Grant (BSC 9043134), a Wenner-Gren Foundation Dissertation Fieldwork Grant (#09094295), as well as grants from the School of Human Evolution & Social Change and the Museum of Anthropology at Arizona State University.

AAHS LECTURE SERIES

All meetings are held at the University Medical Center, Duval Auditorium
Third Monday of the month, 7:30-9:00 p.m.

- May 21, 2012: Matthew Peeples, *Identity and Social Transformation in the Prehispanic Cibola World*
- June 18, 2012: Allen Denoyer, *Prehistoric Technology*
- July 16, 2012: Art Rohn, *The Neglected Stage of Puebloan Culture History*
- Aug. 20, 2012: No lecture, Pecos Conference
- Sept. 17, 2012: Patricia A. Gilman, *What is the Meaning of Mimbres Art?*
- Oct. 15, 2012: Paul Reed, *Chacoan Immigration and Influence in the Middle San Juan*
- Nov. 19, 2012: Joshua D. Reuther and Ben Potter, *Upward Sun River Site: Climate Change, Geoarchaeology, and Human Land Use in Ice Age Alaska*

UPCOMING AAHS FIELD TRIPS

AAHS membership is required to participate in field trips. Prospective members may attend one AAHS field trip prior to joining.

University of Arizona's Tree-Ring Lab

May 5, 2012

Established in 1937, the UA Laboratory of Tree-Ring Research is the world's premier and largest center devoted to dendrochronology — the study of environments and cultures using tree rings. Beyond the use of dendrochronology in archaeology, with which AAHS members are most familiar, the lab also pursues multidisciplinary applications of dendrochronology in climatology, ecology, geology, hydrology, and other fields, which are equally fascinating. Join us on an exploration of this work, including a tour of the sub-stadium warehouses containing material from archaeological digs throughout the Southwest.

Tour limited to 20 people. Meet at 9:00 am for a three-hour tour. Registrants will be given location and parking directions. Contact Lynn Ratener at 520.299.3317 or lynnratener@cox.net.

FLINTKNAPPING WORKSHOP SATURDAY, JUNE 23; 8:30 A.M.–12:30 P.M.

Come learn the ancient art of flintknapping. Join Jon Boyd, avocational archaeologist and flintknapper, for a morning lecture, demonstration, and student hands-on session at the Arizona State Museum. Jon will cover subjects such as the history of flintknapping and various types of flaking techniques and strategies for bifacial reduction, leading up to students trying it for themselves. Come prepared to spend the morning outside (hats, water, sunscreen). Also, please make sure to wear long pants and closed-toed shoes to avoid flakes coming in contact with exposed skin. There is a \$10 charge for the workshop and a 15-person limit. To register, email kcerino@gmail.com.

ARTICLE SUBMISSIONS FOR GLYPHS: If you have research or a field project that would be interesting to *Glyphs* readers, please consider contributing an article. Requirements are a maximum of 1,000 words, or 750 words and one illustration, or 500 words and two illustrations. Please send electronic submissions to jadams@desert.com, or by mail to Jenny Adams, Desert Archaeology, Inc., 3975 N. Tucson Blvd., Tucson, Arizona 85716.

FIELD TRIPS FOR 2012–2013

VOLUNTEERS NEEDED

The field trip committee for next season will be forming shortly. If you are willing to plan a field trip for next year, we need you to volunteer. It is really not an onerous task, and with enough volunteers, each person will only be responsible for one to two trips per year. Field trips are an important part of our Society, both for the enjoyment of current members and bringing in new members. The committee meets once and plans out the program for the year and assigns responsibilities. We try and do a combination of overnight trips, in-town half-day trips, and museum-based outings. If you are willing to help out, or if you have suggestions for trip you would like to participate in, please send an email to Katherine Cerino, Vice President for Activities, at kcerino@gmail.com.

ARCHAEOLOGY SOUTHWEST'S ARCHAEOLOGY CAFÉ

Archaeology Southwest and Casa Vincente invite you to the Archaeology Café, a casual discussion forum dedicated to promoting community engagement with cultural and scientific research. Meetings are the first Tuesday of each month from September to May, at 6:00 p.m. Casa Vicente is located at 375 S. Stone Avenue. The café is free and open to the community.

The remainder of the 2011–2012 season includes the following presentations:

May 1: Natalia Martínez Tagüeña and Vance Holliday, *El Fin del Mundo, Sonora, Mexico: Clovis Archaeology at the End of the World*

2012 T-SHIRTS AVAILABLE ONLINE

The new AAHS T-shirts, designed by Janine Hernbrode, featuring Hohokam burden carriers over a petroglyph design from Cerro Prieto, are now available through our online store at www.az-arch-and-hist.org. The T-shirts, which are available in both a traditional cut and a more tailored women's cut, are \$18.00 (including shipping). The system will create an online account for any purchaser for whom AAHS does not already have an email address. If you have difficulty making a purchase from our online store, contact Vice-President for Membership, Mike Diehl at mdiehl@desert.com.

THE CORNERSTONE

ASM Basket Research Benefits Museum Collections Worldwide

The conservation of American Indian basketry has been a passion for Arizona State Museum Conservator Dr. Nancy Odegaard since she was hired to conduct a survey and design a conservation plan for the Peabody Museum's (Harvard) collection in the 1980s.

Through that period, she, along with colleagues Ron Harvey (Tuckerbrook Conservation/Maine) and Dale Kronkright (Georgia O'Keefe Museum/New Mexico), developed new approaches to cleaning the delicate surfaces of woven fiber objects.

Dental vacuums proved ideal for eliminating dust and dirt from the delicate surfaces without disturbing the fibers. Odegaard also revolutionized the standard practices of repairing tears and breaks by introducing the use of consolidated strips of Japanese tissue paper strategically placed to support the woven elements. These techniques, unheard of in the 1980s, are still taught today in graduate conservation programs and used in museums worldwide.

One of the reasons Odegaard chose to bring her professional skills to Arizona State Museum in 1983, was because of its unparalleled basket collection. It has been her dream since that time to consolidate ASM's collection, to place it in a stable storage environment, and to share it more widely with the public.

Now, 30 years later, a \$400,000 grant from Save America's Treasures (SAT) has Odegaard and ASM on the path to making that dream finally come true. The museum is in the midst of raising an additional \$500,000 so that it can construct a climate-controlled storeroom and new interpretive space for the vast collection of woven wonder – some 25,000 objects.



Dr. Nancy Odegaard examines an extremely rare painted basket to identify pigments and to study weaving technology.

In the meantime, Odegaard, along with her colleagues, students, staff, and volunteers, is working on three new techniques for researching and preserving basketry and fiber objects.

Nano-particle Technology

University of Arizona Ph.D. candidate Molly McGath worked with Odegaard and long-time conservation volunteer Dr. Werner Zimmt to evaluate the impact and effectiveness of calcium hydroxide nanoparticles to preserve archaeological cordage. The approach uses nanoparticles as a buffer to protect celullosic materials from acid hydrolysis (the destructive breakdown of fibers), thus preserving structural integrity and thereby extending the life of delicate fibers indefinitely.

The challenge for McGath was not only to synthesize the nanoparticles, but to successfully apply them within the fibers. Testing on non-artifact pieces of cordage first, she used Attenuated Total Reflectance-Fourier Transform Infrared Spectroscopy (ATR-FTIR) and Scanning Electron Microscopy (SEM), along with tensile testing, pH testing, and artificial aging to evaluate the treatment. Shake table tests indicated positive effects on artificially aged samples, while also identifying the impact of different container types on long-term structural stability.

The team will soon experiment on actual archaeological specimens from the museum's collection.

This project was funded by the



Until now, ASM's baskets have been stored in cramped rooms such as this, without environmental controls or fire suppression systems.

National Center for Preservation Training and Technology (NCPTT).

Imaging Technology

A collaboration between Odegaard and Dr. Pamela Vandiver, professor in the University of Arizona's Department of Materials Science and Engineering, has resulted in xeroradiograph images of ancient sandals in ASM's collection. Using a standard X-ray cabinet to irradiate a sandal on a uniformly charged selenium plate, it was then processed in a xeroradiograph machine. The resulting im-

(continued on page 10)

(continued from page 9)

print formed a charge distribution on the plate that attracted toner particles in a way similar to photocopying. A dry paper image was then produced. This technique is non-destructive and affords a clearer image than standard X-rays. Details of plant fibers and of weave technology are particularly sharp, and are therefore, better for analysis.

Frozen Technology

Odegaard's conservation team is also experimenting with solid particles of dry ice "snow" on baskets in need of cleaning. Odegaard and Zimmt got the idea after learning of the snow's use in cleaning astronomical mirrors. The particles safely remove dust, soot, and other contaminates from delicate surfaces without causing scratches or other damage. Dry ice snow is made when pressurized carbon dioxide (CO_2) is allowed to expand adiabatically (without heat transfer) into a gas. As the temperature drops, some of the gas solidifies into small particles, or snow. The sprayed particles sublime (change from solid to gas without becoming

liquid) rapidly, surrounding each one in an envelope of gas. The dry, non-conductive, non-abrasive, non-toxic jet of CO_2 snow pushes away the unwanted contaminants and leaves no residue, because the particles never come into direct contact with the surface of the object being cleaned.

As with all conservation protocols developed in Odegaard's lab over the years, these will undoubtedly be translated into multiple languages and taught as standard operating procedures in conservation programs and used in museums around the world.

You can learn more about Arizona State Museum's collection of woven wonders and more about Odegaard's research in a new exhibit, *Basketry Treasured*, running now through June 1, 2013.

The Cornerstone is presented by:
Darlene F. Lizarraga, Marketing Coordinator
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Phone: 520.626.8381, FAX: 520.621.2976
www.statemuseum.arizona.edu
dfl@email.arizona.edu

UPCOMING ARIZONA STATE MUSEUM EVENTS

Weaving in the Evening: Conversations about Basketry Thursdays in May, 2012; 6:00-8:00 p.m.

Presented in conjunction with the *Basketry Treasured* exhibit, you are invited to learn more through this exciting five-part lecture series! ASM curators, guest scholars, and basketweavers are scheduled to present. Registration fees apply. Details posted soon at www.statemuseum.arizona.edu/public.

AAHS MEMBERSHIP APPLICATION

Membership is open to all persons who are interested in the prehistory and history of Arizona and the Southwest and who support the aims of the Society. Membership runs for a full year from the date of receipt, and covers all individuals living in the same household.

Monthly meetings are free and open to the public. Society field trips require membership. Members may also purchase an annual JSTOR subscription to *Kiva* back issues for \$20 through the AAHS website.

Membership Categories

- | | |
|----------------------------------|---|
| <input type="checkbox"/> \$50 | Kiva members receive four issues of the Society's quarterly journal <i>Kiva</i> and 12 issues of <i>Glyphs</i> |
| <input type="checkbox"/> \$40 | Glyphs members receive <i>Glyphs</i> |
| <input type="checkbox"/> \$35 | Student Kiva members receive both <i>Kiva</i> and <i>Glyphs</i> |
| <input type="checkbox"/> \$75 | Contributing members receive <i>Kiva</i> , <i>Glyphs</i> , and all current benefits |
| <input type="checkbox"/> \$120 | Supporting members receive <i>Kiva</i> , <i>Glyphs</i> , and all current benefits |
| <input type="checkbox"/> \$300 | Sponsoring members receive <i>Kiva</i> , <i>Glyphs</i> , and all current benefits |
| <input type="checkbox"/> \$1,000 | Lifetime members receive <i>Kiva</i> , <i>Glyphs</i> , and all current benefits |

For memberships outside the U.S., please add \$20.

For institutional membership, contact AltaMira Press at <www.altamirapress.com> or 800.273.2223.

You can join online at www.az-arch-and-hist.org, or by completing the form below and mailing it to:

Michael Diehl, VP Membership
Arizona Archaeological and Historical Society
Arizona State Museum, The University of Arizona
Tucson, AZ 85721-0026

Name: _____ Phone : _____

Address: _____

City: _____ State: _____ Zip: _____

E-mail: _____

AAHS does not release membership information to other organizations

BOARD OF DIRECTORS 2011-2012

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RETURN SERVICE REQUESTED

The objectives of the Arizona Archaeological and Historical Society are to encourage scholarly pursuits in areas of history and anthropology of the southwestern United States and northern Mexico; to encourage the preservation of archaeological and historical sites; to encourage the scientific and legal gathering of cultural information and materials; to publish the results of archaeological, historical, and ethnographic investigations; to aid in the functions and programs of the Arizona State Museum, University of Arizona; and to provide educational opportunities through lectures, field trips, and other activities. See inside back cover for information about the Society's programs and membership and subscription requirements.

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