



GLYPHS

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Arizona Archaeological and Historical Society
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Santa Cruz Red-on-buff jar, circa A.D. 850–950.

Next General Meeting: February 16, 2009

<<http://www.statemuseum.arizona.edu/aahs/aahs.shtml>>

PRESIDENT'S MESSAGE

AAHS Elections



It's that time of year again. Each year, the Arizona Archaeological and Historical Society renews itself by holding an annual election, bringing new people and ideas to the Board of Directors and the various Officer positions. Also at this time, new people join the Committees that do much of the work of the Society.

I want to highlight the election process because it is vital to the continued success of the Society. The Board includes up to 16 elected members including seven Officers, (such as President, VP for Activities, and so on). Each year, a number of Board positions become open as terms expire. And each year, all Officer positions are open because the term of these positions is one year.

Fortunately, many Officers serve more than one term, and sometimes Board members are willing to serve an additional 2- or 3-year term beyond their original commitment. This provides needed continuity in the organization.

However, positions open up each year, and this provides an opportunity for new people to become involved on the Board. This year, the terms of a number of Board Members expire, including the Board terms of most Officers. While I suspect that some individuals will serve an additional term, I believe this year we will

need several new people to join the Board and, in some cases, assume an Officer position.

Here's how the process works. A Nominating Committee is formed in early February. The Committee will determine which positions need to be filled and then begin the process of identifying a slate of candidates for those positions. As part of this, they will publish a call for nominations in *Glyphs*. The slate of candidates will be presented at the March General Meeting, and there will be a call for nominations from the floor at that time. Ballots will be sent to all members along with renewal notices, and election results will be finalized by mid-May. New Board members and Officers will begin their terms July 1.

So why am I telling you all this? I would like you to consider if it is time for you to serve the Society as a Board Member or possibly as an Officer. AAHS is a volunteer organization, so the quality and breadth of our programs are directly related to the strength of the Board. The Nominating Committee will ask some of you to join the Board, and I hope you will accept their invitation. You can also initiate contact with the Nominating Committee yourself to discuss how you can help.

Some people prefer to contribute to the Society through membership on one of our Committees. Commit-

tees do much of the work of the Society, so this is an excellent way to get involved. Presently, we particularly need members for the Activities Committee (organize Field Trips and Lectures) and the Education Committee (organize Classes). Please contact me

if you are interested in joining a Committee.

AAHS does a great deal to promote scholarship and provide educational opportunities. I hope you can help.

—Peter Boyle, President

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.

- Feb. 16, 2009: David Abbott, *On a Foundation of Potsherds: Building a New Model of the Phoenix Basin Hohokam*
- Mar. 16, 2009: Paul Minnis and Michael Whalen, *Paquimé Postscript: New Work Around Casas Grandes*
- Apr. 20, 2009: Carolyn O'Bagy Davis, *Hopi Summer: Letters from First Mesa*
- May 18, 2009: Mark Elson, *Human Adaptation to Catastrophic Events: Lessons from the 11th Century A.D. Eruption of Sunset Crater*

CONFERENCE ON ARCHAEOASTRONOMY OF THE AMERICAN SOUTHWEST

To provide a forum to promote research and a better understanding of the cultural significance of astronomical knowledge among American Southwest cultures, we are inaugurating a biennial *Conference on Archaeoastronomy of the American Southwest*. June 11–13, 2009, will mark the first conference with the theme "Creating Sustainability in American Southwest Archaeoastronomy Research." This conference will be held at the Lodge at Cliff Castle, Camp Verde, Arizona, a Yavapai-Apache Nation property.

Applications for presentations and posters are being accepted through March 1, 2009. A student paper competition, with prizes of \$600, is also being inaugurated, with a deadline for submission of final papers of April 1, 2009. A special hotel rate has been negotiated. For additional information, applications, and hotel information, visit the conference website at <<http://www.caasw.org/>> or email <administrator.caasw.org>.

AAHS HAPPENINGS

TOPIC OF THE FEBRUARY 16 GENERAL MEETING

On a Foundation of Potsherds: Building a New Model of the Phoenix Basin Hohokam

by David R. Abbott

Determining the production source of Hohokam ceramics within the Phoenix Basin can be accomplished with great precision, leading to detailed models of pottery production and exchange. The methodology rests on a remarkable geological landscape in the lower Salt River valley, perhaps the best on the planet for sourcing prehistoric pottery.

A large number of mineralogically distinct rock types and sands are present, each in its own part of the valley. The valley's raw materials also differ from those utilized by potters to the south, along the middle Gila River. By matching the rock and sand tempers in the ceramics to their place of natural origin, one can pinpoint where the clay containers were made and to where they were distributed.

Tens of thousands of pottery specimens have now been sourced, leading to the conclusion that very few potters labored to supply the households of the lower Salt River valley with ceramic vessels during the middle Sedentary period (A.D. 1000-1070), probably distributing their wares via marketplaces associated with ballcourt rituals. Additional re-

sults show that highly specialized production extended deep into the Hohokam past, with a high volume of exchange and an uninterrupted duration that were unparalleled in the prehistoric Southwest.

Each year, pottery makers transferred thousands of pots to consumers, often across considerable distances, indicating a robust regional-scale economy that flourished for centuries. A primary component of that economy may have been a crucial interdependence between the lower Salt and middle Gila river valleys. Middle Gila artisans regularly exported decorated and plain ware pots and presumably other crafts, probably in exchange for agricultural surpluses grown by large irrigation cooperatives along the Salt River. In this way, the fortunes of the Hohokam populations in the two valleys may have been interlinked to an extent not recognized before.

Suggested Reading:

Abbott, David R.
2000 *Ceramics and Community Organization among the Hohokam*. University of Arizona Press, Tucson.

- 2003 *Centuries of Decline during the Hohokam Classic Period at Pueblo Grande*. University of Arizona Press, Tucson.
- Abbott, David R., Alexa M. Smith, and Emiliano Gallaga
2007 *Ballcourts and Ceramics: The Case for Hohokam Marketplaces in the Arizona Desert*. *American Antiquity* 72:461-484.

Speaker David R. Abbott is Associate Professor of Anthropology at Arizona State University. He has designed and is conducting a long-term research program focused on the ancient pottery of the Sonoran Desert. He combines pottery studies with geological, petrographic, and chemical analyses to determine the organization of ceramic production and distribution in southern and central Arizona. This work is dedicated to modeling the exchange and social networks that composed the Hohokam regional system, investigating the impact of large-scale irrigation on sociocultural evolution, and developing the unique contribution that ceramic research can make to the study of prehistoric communities. Dr. Abbott received his M.S. in Statistics from the University of Arizona and his Ph.D. in Anthropology from Arizona State University. He received the 1995 Society for American Archaeology Dissertation Award.

WORKSHOP: ARCHAEOLOGICAL PROSPECTION TECHNIQUES

The National Park Service's 2009 workshop on archaeological prospection techniques, entitled *Current Archaeological Prospection Advances for Non-Destructive Investigations in the 21st Century*, will be held May 18-22, 2009, at the National Park Service's National Center for Preservation Technology and Training, Natchitoches, Louisiana. Field exercises will take place at the Los Adaes State Historical site, a Spanish presidio and capital of the Spanish province of Texas between 1719 and 1772. Co-sponsors for the workshop include the National Park Service, the U.S. Army Corps of Engineers, Los Adaes State Historic Site, Northwestern State University of Louisiana, and the Louisiana Division of Archaeology. This is the nineteenth year of the workshop dedicated to the use of geophysical, aerial photography, and other remote sensing methods as they apply to the identification, evaluation, conservation, and protection of archaeological resources across the country. The workshop will present lectures on the theory of operation, methodology, processing, and interpretation, with hands-on use of the equipment in the field. Lodging will be at the Ramada Inn. There is a \$475 registration fee.

Application forms are available on the Midwest Archeological Center's website at <<http://www.nps.gov/history/mwac/>>. For further information, please contact Steven L. DeVore, Archeologist, National Park Service, Midwest Archeological Center, Federal Building, Room 474, 100 Centennial Mall North, Lincoln, NE 68508-3873, or 402.437.5392, ext. 141, or <steve_de_vore@nps.gov>.

DECEMBER 2008 RAFFLE PRIZE WINNERS

AAHS held its annual fundraiser for scholarships and research grants at the December 2008 meeting. Special thanks go to Jeff Reid, auctioneer, Jesse Ballenger, his assistant, Todd Pitezal, Matt Pailes, and Tom Euler who assisted the Fundraising Committee, and Mel Copeland, David McLean, Kylie Miller, Sharon Urban, Bridwell Williams, and Donna Yoder at the auction and raffle. Food and soft drinks were provided compliments of Safeway Stores at 2401 W. Grant Rd. and 1551 W. St. Mary's Rd., Kylie Miller, Bridwell Williams, and Donna Yoder

Donor	Prize	Winner
Desert Museum	4 passes	Wayne Klement
Eclectic Café	2 dinners	Jo Ann Jenkins
La Posada, Winslow	1 night, standard room	Carryl B. Martin
Old Pueblo Archaeology	Membership, etc.	David McLean
Old Pueblo Archaeology	Mimbres Gods notecards & Pages from Hopi History	Jerome J. Morrow
Verde Canyon Railroad	2 adult coach passes	Paul Fish
Bookman's	Gift certificate	Joyce Cashman
Bookman's	Gift certificate	Mark Henderson
Arizona Theater Co.	2 complimentary tickets	James Justice
Native Seeds/ SEARCH	Gift certificate	George Harding
Durango & Silverton Narrow Gauge Railroad	2 round-trip passes	Laurel Cooper
Crow Canyon	Day program for 2	Helga Teiwes
John Palacio	Small rock, Chaco petro design*	Jane Kolber
John Palacio	Glass pitcher and 4 glasses with Tucson Mt. petro designs*	Anton Daughters
John Palacio	Wind chime*	Donna Yoder
John Palacio	10 vinyl stickers	Ken & Nancy Zoll
David McLean	Mata Ortiz pot*	Val Davidson
Donna Yoder	Navajo wedding vase	Gerhard Meier
Tohono Chul Park	Family membership	Cherie Freeman
Madaras Gallery, Inc.	Monolith, matted print, 11x14	Kerry Adams
Madaras Gallery, Inc.	A Purple Day, matted print	Pauline Hohmann
Tucson Botanical Gardens	4 guest passes	John Welch
Kylie Miller	Turquoise necklace*	Werner Zimmt
Mel Copeland	Mata Ortiz pot	Bill Hohmann
Werner Zimmt	Tohono O'odham basket*	Janine Hernbrode
Alan Ferg	Playing Cards of the Apaches*	Kylie Miller
Grand Canyon Railroad	2 coach class tickets	Dick Bibbens
Peter Boyle	Hopi butterfly bowl, circa 1970*	Donna Yoder
Peter Boyle	Navajo Gallup throw, circa 1970*	Stephanie Whittlesey
Peter Pilles & Anne Worthington	Navajo seed jar	Carol Trejo
Jane Kolber	Tonita Pena, by Samuel Gray	James M. Copus
SWCA: Tom Euler	Sportsman's Warehouse	Janet A. Thomas

Center for Desert Archaeology	1-year supporting membership	Katherine Cerino
Center for Desert Archaeology	From Above: Images of a Storied Land	Barbara Markert
Southwestern Mission Research Center	3-day, 2-night mission tour	Linda Gregonis
La Salsa	Lunch or dinner for 2	Elizabeth Ney
Arizona State Museum	Arizona, by Tom Sheridan	Alan Skinner
Arizona State Museum	Arizona, by Tom Sheridan	John Welch
Arizona State Museum	Clay Pottery, matted and framed*	Stephanie Whittlesey
Gayle Hartmann	Tohono O'odham wire basket	Jane Delaney
Carolyn O'Begay Davis	Hopi quilt and Hopi Quilting*	Gayle Hartmann
Teddie Burch	They Sang for Horses, by LaVerne Clark	Anton Daughters
Brantley Baird	Rock Art ranch Steps and Museum tour for 2	Carryl B. Martin
Pastiche	Gift certificate	Stephanie Kulow
Xanterra South Rim	3-day, 2-night & bus tours	Wayne Klement
Statistical Research, Inc.	Fragile Patterns, Altschul, ed.*	Irma Moreno
Statistical Research, Inc.	Rivers of Rock, by Whittlesey*	Juan Garms
WNPA	Adult bookbag*	Sharon Onak
WNPA	Kids bookbag*	Gayle Hartmann
Helga Teiwes	Hopi Basket Weaving	Kylie Miller
Tom & Sharon Onak	Cedar Mesa, Chiricahua Mountains, and Organ Pipe	Steven James
Tom & Sharon Onak	The Journals of Adolph F. Bandelier, 1880-1882	Alan Skinner
Tom & Sharon Onak	Bandelier: The Life and Adventures of Adolph Bandelier	Cherie Freeman
Mini Montez	Flagstone with flute player design*	Bill Hallet
John Wittaker	Stemmed point, Burlington chert	Lekson/Cameron
Dorothy Bart	Puebloan pot	John Welch
Larry & Judy Oyen	Ceramic bear with petro designs	Val Davidson
Tucson Symphony Orchestra	2 tickets	James Copus
Richard Mike, Kayenta Hampton Inn	2-night stay, 2 dinners each night	Bonnie Lamm
G. Donald Kucera	1 pair earrings	Marge Gilbert
G. Donald Kucera	1 pair earrings	William Hurley
Arizona State Museum	Signed copy of Navajo Weaving in the Late 20th Century, by Ann Hedlund	Gerhard Meier

CANDIDATES FOR AAHS OFFICERS AND BOARD MEMBERS SOUGHT

The annual elections for AAHS Officers and Board Members are coming up. If you are interested in running for office or for a Board membership position, please send an e-mail to Katherine Cerino at <kcerino@gmail.com> by March 6, 2009. Board positions are open to all members of the Society.

THE CORNERSTONE

The Role of “Thrifty Genes” in the Evolution of American Indian Health Issues

James T. Watson, Arizona State Museum

Daniel C. Benyshek, University of Nevada Las Vegas

The modern “Metabolic Syndrome” (cardiovascular disease, hypertension, obesity, and type-2 diabetes) has disproportionately affected indigenous communities globally, compared to their industrialized counterparts. This is especially salient in the Sonoran Desert where American Indians suffer from the highest rates of type-2 diabetes in the world. Genetic research since 1960 proposes that indigenous groups are genetically predisposed to these conditions because they possess a “thrifty genotype,” genes that have been selected in response to periods of feast or famine in the past.

In an article published in the *American Journal of Physical Anthropology* (AJPA 131:120–126, 2006), we chose to test the basic assumptions about the thrifty genotype model by analyzing ethnographic nutritional data from 94 foraging and preindustrial agricultural groups from around the world, and tested the hypothesis that foragers are more likely to suffer from ‘feast or famine’ cycles than agriculturalists. We hypothesized that significant differences between foragers and agriculturalists with respect to one or more nutritional variables (quantity of available food, frequency of food shortages, and extent of food shortages) would provide supportive

evidence for the central tenet of the thrifty genotype hypothesis; that is, that foragers are less food-secure than agriculturalists.

Our results revealed no significant differences between foragers and agriculturalists with respect to any of the three variables. While these findings are tentative, given the nature of the data used in cross-cultural ethnographic research, they are at odds with the thrifty genotype proposition that past foraging populations suffer disproportionately from severe and frequent ‘feast or famine’ cycles of nutrition, thereby providing a selective advantage for thrifty genotypes. The data presented here add to a growing body of research that calls into question assumptions about forager food insecurity (recently and in the prehistoric past), and the nutritional environment that might have selected for a thrifty genotype in past foraging populations.

Our findings suggest that food insecurity varies considerably within food economy types, and that generalizations about food security based on food economy alone may be unwarranted. Future research would benefit from an evidence-based, population-specific approach to food security in the prehistoric/his-

toric past, which would allow more direct hypothesis testing of the thrifty genotype and other evolutionary models.

Finally, our results may have implications for ‘fetal origin’ etiological models of diabetes. It is becoming increasingly clear that our species is remarkably flexible in our ability to adapt physiologically (via phenotypic and developmental plasticity) to highly variable nutritional environments, beginning in fetal life and continuing throughout the life cycle. This may mean that thrifty genetic adaptations to these environments play significantly less of a role, and physiological adaptations a much greater one, than once thought.

In our current work, we have identified and are examining three events in the history of the native peoples of the Sonoran Desert that could have produced selective forces sufficient enough to telescope “thrifty” genes in these populations. First, the earliest human migrations into the Americas provide abundant evidence for genetic drift American Indians, but these genetic markers are independent of metabolic controls. Second, the

transition to agriculture in the Sonoran Desert could create selections for metabolic responses to periods of food insecurity, but archaeological and skeletal evidence indicates that nutrition and health was excellent. Third, the European entrance into the New World, and later the Sonoran Desert, caused massive die-offs that could have created episodes of selection and/or drift, but these forces were created by epidemic and not metabolic diseases. There is evidence, however, for periods of severe nutritional stress associated with reservation policies, a loss of traditional lifeway, and the possibility that plastic physiological responses to these stresses formed a positive feedback cycle that created a metabolic epidemic among subsequent generations.

*The Cornerstone is presented by:
Darlene F. Lizarraga, Marketing Coordinator
Arizona State Museum, University of Arizona
P.O. Box 210026, Tucson, AZ 85721-0026
Phone: 520.626.8381, FAX: 520.621.2976
<www.statemuseum.arizona.edu>
<dfl@email.arizona.edu>*

UPCOMING ARIZONA STATE MUSEUM EVENTS

Southwest Indian Art Fair

February 21, 2009; 10:00 a.m.–5:00 p.m.; February 22, 2009; 10:00 a.m.–4:00 p.m.

Southern Arizona’s premier Indian art show and market! Meet 200 renowned Native artists. Shop for top-quality artwork, including pottery, Hopi kachina dolls, paintings, jewelry, baskets, rugs, and much more. Artist demonstrations, Native foods, music, and dance performances round out the two-day celebration.

UPCOMING AAHS FIELD TRIPS

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

March 21-22, 2009

Geoglyphs and Petroglyphs in the Painted Rocks Area

This optional 1- or 2-day trip will be led by archaeoastronomer, John Fountain and is timed to coincide with the spring equinox so that we may observe a solar interaction with petroglyphs. The trip will start from Painted Rocks Campground (exit 102 off I-8), Saturday morning. We will visit several rock art sites, summit paths, and a large geoglyph in the area. Access involves about 2 miles of hiking over level ground and several short, steep, but not difficult ascents. On Sunday, we will visit the Oatman Massacre site and another petroglyph site. There is a primitive campground available at Painted Rocks State Park, as well as motels in Gila Bend. To sign up, contact David McLean, <mcleand43@gmail.com>. Indicate your interest in just a Saturday trip or both a Saturday and Sunday trip.

April 4, 2009

The Arizona Archaeological and Historical Society is planning a private tour of the Mills Collection of Salado artifacts at Eastern Arizona College in Thatcher. We also plan to visit Marijilda Ruin, a well-preserved masonry pueblo, with an archaeologist on the way to Thatcher. We would have lunch after the site visit, picnic style, and then visit the museum. More information will be forthcoming. Please mark your calendar if you are interested.

NEW PUBLICATION

Las Capas: Early Irrigation and Sedentism in a Southwestern Floodplain

edited by Jonathan B. Mabry

This volume summarizes the results of archaeological data recovery fieldwork at the Early Agricultural period site of Las Capas undertaken by Desert Archaeology, Inc., personnel in 1998. Las Capas, is a 123-acre stratified site buried in the former floodplain of the Santa Cruz River. The site is currently unique among investigated Early Agricultural period sites in the U.S.-Mexico borderlands in terms of duration and continuity of occupation, thickness of midden deposits, and artifact and feature densities. The prehistoric canals are among the earliest known examples in the Southwest and are the most significant archaeological features document during this project. The volume sells for \$24.95 and can be purchased from the Center for Desert Archaeology at <http://www.cdarc.org> or 520.882.6946.

AAHS MEMBERSHIP/SUBSCRIPTION APPLICATION

(A membership subscription makes a great gift for your loved ones!)

All members receive discounts on Society field trips and classes.
Monthly meetings are free and open to the public.

Categories of Membership

- \$45 **Kiva** members receive 4 issues of *Kiva*, 12 issues of *Glyphs*, and all current benefits
- \$35 **Glyphs** members receive *Glyphs*
- \$30 **Student Kiva** members receive both *Glyphs* and *Kiva*
- \$15 **Student Glyphs** members receive *Glyphs*
- \$75 **Contributors** receive *Glyphs*, *Kiva*, and all current benefits
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- Please do NOT release my name on requests for the AAHS mailing list.

MEMBERSHIP/SUBSCRIPTION INFORMATION

Visitors are welcome at all of the Society's regular monthly meetings but are encouraged to become members to receive the Society's publications and to participate in its activities at discount rates.

Memberships and subscriptions run for one year beginning on July 1 and ending June 30. Membership provides one volume (four issues) of *Kiva*, the Journal of Southwestern Anthropology and History, and 12 issues of the monthly newsletter *Glyphs*.

For a brochure, information, or membership/subscription application forms, contact:

Doug Gann, VP Membership
Arizona Archaeological and Historical Society
Arizona State Museum, University of Arizona
Tucson, AZ 85721-0026 USA
<dgann@cdarc.org>

Libraries and other institutions interested in institutional subscriptions to *Kiva* should contact the publisher, AltaMira Press, at <www.altamirapress.com> or 800.273.2223.

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Treasurer: Alex Cook, 520.321.4619 <agcook@ees.arizona.edu>
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Arizona Archaeological and Historical Society
Arizona State Museum
University of Arizona
Tucson, Arizona 85721-0026
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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.