



GLYPHS

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



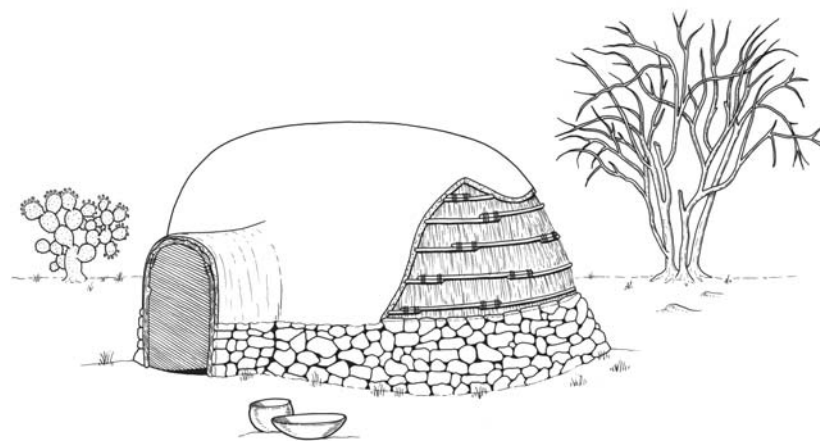
Vol. 57, No. 8

Tucson, Arizona

February 2007

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*Reconstruction of a Tumamoc Hill house, as drawn
by Ron Beckwith.*

Next General Meeting: February 19, 2007

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

PRESIDENT'S MESSAGE

The United States Army has maintained a presence in Arizona for about 160 years. At first, the connection was of a temporary, "just passing through" sort, but permanent facilities were soon established. Camp Calhoun was located across the Colorado River from what later became Yuma in 1849, and the first permanent army post in Arizona, Fort Defiance, was built in 1851. Although Calhoun and its successor, Fort Yuma, were on the California side of the river, they played an important role in the settlement of Arizona along the river and elsewhere.

Approximately 25 army posts of various types had been established across Arizona by the 1860s, although most were decommissioned at the time of the Civil War. After the war, and up to about 1900, there were nearly 40 army posts in Arizona, many situated to contribute to the ongoing Apache wars, which were concluded in the 1880s.

The need to intensify and accelerate communications among the posts in the 1880s became of paramount importance. To assist the army in its work, General Nelson A. Miles, after he became commander of the Department of Arizona and New Mexico,

created a heliograph network in early 1886. The heliograph allowed the widely dispersed army to rapidly report on Apache movements and activities across a very large area. As an indication of the importance of the system, over 800 messages were sent during the short 5-month-long life of



the heliograph system—that is, between May 1 and September 30, 1886. Miles' use of the heliograph was in direct response to the army's most troublesome protagonist, Geronimo. Miles, like most people in Arizona, believed this skilled warrior had to be stopped.

The heliograph consisted of a portable wooden tripod on which rested one or two mirrors that swiveled, a sighting device, and a shutter. The mirrors could be rotated to aim the rays of the sun in any direction desired. By interrupting the sunlight on the mirror with the shutter, Morse code messages could be sent. The heliograph, which took at least two men to operate, required constant adjustment to keep up with the movement of the earth relative to the sun. While on duty, operators had to camp out on mountain peaks, living in tents. Crew sizes ranged from four to six men.

Messages generally could not be sent beyond a 25- to 70-mile range. However, the world distance record

for sending a heliograph message was set in 1894 between Mt. Ellen, Utah, and Uncompahgre Peak in Colorado, a distance of 183 miles. Given today's air pollution, even the normal 25- to 70-mile range might be difficult to achieve. Weather controlled everything, without sunlight and clear air, the heliograph could not function.

The army began experimenting with the heliograph in 1877 at Fort Meyer, Virginia, and later in Montana, Oregon, and Arizona. General Miles established his system in Arizona and New Mexico in early 1886. By August of that year, an extensive network had been created. The Arizona Division had 14 stations operated by 65 men, and the New Mexico Division had 13 stations manned by 29 soldiers.

Fort Bowie served as Miles' headquarters, and therefore, it became the focal point of the network. In Arizona, the network extended from Fort Whipple (Prescott) in the north to Fort Verde, Fort McDowell, San Carlos, Fort Grant, Fort Lowell (Tucson), Fort Huachuca, Fort Bowie, and several additional minor posts. The New Mexico branch extended from Fort

Bowie eastward to Fort Bayard, Fort McRae, Fort Cummings, Fort Staunton, and to a few lesser establishments in between.

With the capture of Geronimo in early September of 1886, the heliograph system lost its appeal, and its many stations were discontinued. In 1890, some of the stations were reactivated for practice purposes, but by 1894, the system had been totally abandoned.

At the end of 1886, the question was: Did the heliograph help bring about Geronimo's capture and an end to the Apache wars? General Miles and his subordinates believed so; the citizens of Arizona and southwestern New Mexico generally did not care one way or the other. They were just happy to have the long-standing "Apache menace" a subject of the past.

Thanks to Walker and Bufkin, *Historical Atlas of Arizona* (1979), Lewis Coe, *Great Days of the Heliograph* (1987), and Roger Kelly, *Talking Mirrors at Fort Bowie* (1967) for the helpful background material about the heliograph system.

—James E. Ayres (Jim), President

AAHS LECTURE SERIES

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

- Feb. 19, 2007: Paul and Suzanne Fish, *Tumamoc Hill Revisited: New Data and Alternative Perspectives on Early Trincheras Sites*
Mar. 19, 2007: Fred Blackburn, *The Wetherills: Friends of Mesa Verde*

AAHS HAPPENINGS

TOPIC OF THE FEBRUARY 19 GENERAL MEETING

Tumamoc Hill Revisited: New Data and Alternative Perspectives on Early Trincheras Sites

by Paul and Suzanne Fish

A prominent Tucson landmark, Tumamoc Hill has one of the most extensive prehispanic hill settlements with masonry architecture (*cerros de trincheras*) in southern Arizona. This flat-topped peak rises 700 feet above the Santa Cruz floodplain in central Tucson. Stone constructions concentrated on the summit and upper slopes include massive encircling walls and terraces, an elaborate trail system, smaller terraces, residential structures, and an extensive array of petroglyphs and mortars.

The hilltop location of the Tumamoc village is unique among numerous contemporary settlements below. Since Spanish Colonial times, such *trincheras* sites have spurred both public and scholarly interest. Many observers have favored a defensive motivation for the massive terraces and walls, while others have proposed agricultural, ceremonial, and signaling functions. Tumamoc Hill has figured in all these debates.

Recent research demonstrates that Tumamoc terraces and walls were constructed between 500 and 300 B.C., during the Early Agricultural period. These represent the ear-

liest known "public architecture" in Arizona, in that they are of a scale that required communal labor for building. Several centuries later (A.D. 400-500), the summit was again the location of one of the largest Tucson villages, with more than 100 Tortolita phase houses. Residents built circular houses with lower walls of stone and domed superstructures of poles, woven brush, and packed hearths.

As a 1979 special issue of *The Kiva*, the Arizona Archaeological and Historical Society published the results of its pioneering Tumamoc study and a comprehensive map of summit features. The University of Arizona Archaeological Field School is currently updating this map using contemporary techniques in conjunction with a current AAHS rock art project. Our presentation will summarize investigations since 1979, and will relate current efforts to a new view of Tumamoc Hill in regional archaeology.

Downum, Christian E., Paul R. Fish, and Suzanne K. Fish

1994 Refining the Role of Cerros de Trincheras in Southern Arizona Settlement. *The Kiva* 59:271-296.

Fish, Paul R., Suzanne K. Fish, Austin Long, and Charles Miksicek

1986 Early Corn Remains from Tumamoc Hill, Southern Arizona. *American Antiquity* 51:563-572.

Hard, Robert J., and John R. Roney

1998 A Massive Terraced Village Complex in Chihuahua, Mexico, 3000

Years Before Present. *Science* 279: 1661-1664.

Wilcox, David R., and Stephen M. Larson
1979 The Tumamoc Hill Survey: An Intensive Study of a Cerro de Trincheras in Tucson, Arizona. *The Kiva* 45 (1-2):1-195.

Speaker Paul R. Fish received his Ph.D. from Arizona State University in 1976. He is Curator of Archaeology and Professor of Anthropology at the University of Arizona, and he coordinates the Southwest Land, Culture and Society program jointly sponsored by the Department of Anthropology and the Arizona State Museum. Current research interests and publications pertain to the organization of middle range societies, the Hohokam of southern Arizona, and complex pre-European fishermen of southeast coastal Brazil.

Speaker Suzanne K. Fish received her interdisciplinary Ph.D. from the University of Arizona in Arid Lands Resource Sciences. She is Curator of Archaeology and Professor of Anthropology at the University of Arizona. Her research interests include ethnobotany, traditional agriculture, emergent political complexity, the U.S. Southwest and northern Mexico, and coastal Brazil. With Paul Fish and Elisa Villalpando, she is an editor of a forthcoming University of Arizona Press book on *trincheras* archaeology that contains a chapter by Henry Wallace, Paul Fish, and Suzanne Fish examining the regional context of Tumamoc Hill from different theoretical perspectives.



AAHS volunteers at Tumamoc Hill during initial training in November 2006. The team of AAHS volunteers is currently recording and photographing rock art at the site.

TWO VOLUNTEERS NEEDED AT GENERAL MEETINGS

We are seeking two individuals to provide audiovisual assistance at our monthly general meetings. These individuals will be responsible for working with speakers to ensure that their A/V materials are successfully presented during lectures. Familiarity with PowerPoint software and with interfacing PCs to projection equipment is necessary. We would like to recruit two volunteers so that one person can serve as a back-up for the other to ensure coverage at all monthly meetings. To volunteer, or to obtain further information, please contact Peter Boyle at 520.232.1394 or <sjboyle@aol.com>.

NEW AAHS MAILING POLICY

The Board of Directors has approved a new policy relating to replacement of missing issues of *Kiva* and *Glyphs*. The Post Office does not automatically forward third class mail, such as *Kiva* and *Glyphs*, when an individual requests that mail be forwarded to a new or temporary address ("temporarily away"). One must make special arrangements with the Post Office, and pay to have third class mail forwarded.

AAHS has to pay "postage due" on all undeliverable, and thus returned, publications. The society pays for the original postage to mail *Glyphs*, it pays postage due for the returned issues, and it pays again when mailing an issue that the subscriber did not receive due to failure to have third class mail forwarded. Also, missing issues of *Kiva* are billed to AAHS at the full publisher's rate when they are re-sent.

Because we operate on a razor-thin financial margin, AAHS can no longer continue to re-send missing issues without recovering its costs. These costs may include printing, postage, and postage-due charges. For example, in July 2006, over a dozen *Glyphs* were returned with postage due.

We will, of course, continue to re-send issues to individuals and libraries who have not changed addresses and find they are missing a particular issue.

It is incumbent upon all AAHS members to keep their address information current. If a move to a new address is imminent, please notify the Vice President for Membership, Doug Gann, at 520.882.6946 or <dgann@cdarc.org>.

To give everyone an opportunity to absorb this change, the policy to recover costs for having to re-mail copies of AAHS publications will be effective January 1, 2007.



NOMINATIONS FOR CUMMINGS AND STONER AWARDS BEING ACCEPTED

Once again, the Arizona Archaeological and Historical Society Awards Committee is accepting nominations for the Byron S. Cummings and Victor R. Stoner awards. The Cummings award is given for outstanding research and contributions to knowledge in Southwestern archaeology, anthropology, ethnology, or history. The Stoner award celebrates the promotion of historic awareness and is awarded to someone who brings Southwestern anthropology, archaeology, ethnology, or history to the public over an extended period of time. The awards, which are given annually, are presented in August at the Pecos Conference. Please contact Patrick Lyons with any nominations: 520.621.6276 or <plyons@email.arizona.edu>.

SCHOLARSHIP AND GRANTS APPLICATIONS AVAILABLE

The Arizona Archaeological and Historical Society is pleased to announce its grant and scholarship applications for 2007. Scholarships and grants in amounts up to \$500 will be awarded for scholarship, research, and travel related to archaeology, anthropology, American Indian studies, ethnology, ethnohistory, and history of the American Southwest and Northwest Mexico. Applications must be postmarked by February 15, 2007, to be eligible for consideration. Applications can be obtained from some student advising offices, the AAHS website <http://www.statemuseum.arizona.edu/aahs/aahs_grant_info.shtml>, or by contacting Laurie Webster at <Lwebster1@mindspring.com>.



ROCK ART ON THE WESTERN SLOPE OF THE SANTA CATALINA MOUNTAINS THE MARCH AAHS FIELD TRIP

March 3, 2007; 9:00 a.m.

This field trip will take us to two very interesting rock art sites located on the western slope of the Santa Catalina Mountains. Sites to be viewed include the Baby Jesus Ridge site and the Lost and Found site, both of which are located on Coronado National Forest land. At the Baby Jesus Ridge site, we will see fascinating examples of natural rock features incorporated into rock art. The Lost and Found site is spread out over the northern and southern sides of a canyon, so there will be some scrambling to reach the rock art at this site. It will be great fun to try to locate the "Circle Man" on the southern side of the canyon! Our leader will be Sharon Urban, noted rock art expert and AAHS Board Member.

We will meet at 9:00 a.m., March 3, at the southeastern corner of Golder Ranch Road and Oracle Highway (State Route 77), about 3 miles north of Rancho Vistoso Boulevard. There is a gas station and convenience store on the corner where you can pick up any last minute necessities. When you arrive, please pull along the side of Golder Ranch Road, heading east. We will caravan from that point to the parking area. High-clearance vehicles are best for this trip, so we will car pool, as necessary, when we get to the difficult roads.

The trip will end about 2:00 p.m. Bring water and lunch, and be sure to wear sun protection and sturdy shoes; a camera is also be a good idea. For additional information, or to register, please contact Peter Boyle at 520.232.1394 or <sjpboyle@aol.com>. [\$5 for members; \$10 for non-members]

ZUNI

PRESENTED BY THE
ARIZONA ARCHAEOLOGICAL AND HISTORICAL SOCIETY

The fascinating archaeology and history of Zuni is explored in this four-lecture class. Current and past research are brought together by some of the most knowledgeable scholars working in the area. Recent fieldwork includes Statistical Research, Inc.'s, Fence Lake Project that investigated a substantial Archaic occupation, and Arizona State University's study of the emergence of Zuni society and Zuni-Hohokam connections.

Collections from excavated Contact period sites continue to be reanalyzed by the University of Arizona, providing sources of information about how ceramics changed along with other social transformations. Finally, our understanding of the late pre-Contact and early Contact periods have benefited greatly from an integrated approach that considers both archaeology and oral tradition.

- February 26 Ed Huber, Ph.D. (Statistical Research, Inc.): *The Archaic and Early Agricultural Period in the Zuni Region*
- March 6 Greg Schachner (Arizona State University): *The Origins of Zuni Society and Zuni-Hohokam Connections*
- March 13 Professor Barbara Mills, Ph.D. (University of Arizona): *Ceramics and the Social Transformation of Zuni Pueblo, A.D. 1300-1900*
- March 20 T. J. Ferguson, Ph.D. (University of Arizona): *Archaeological and Ethnohistoric Perspectives on Late Pre-Contact and Early Contact Zuni*

Preregistration is required. To register, please contact Jeff Clark at 520.884.1078 or <jclark@cdarc.org>. [\$40 for AAHS members, \$50 for non-members; \$10 discount available for students and K-12 teachers]

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. E-mail me, Emilee Mead, at <emilee@desert.com>, or contact me at Desert Archaeology, Inc., 3975 N. Tucson Blvd., Tucson, AZ 85716; 520.881.2244 (phone), 520.909.3662 (cell), 520.881.0325 (FAX).

AAHS WEBSITE: *Glyphs* is posted each month and can be found on the ASM/AAHS website at: <<http://www.statemuseum.arizona.edu/aahs/aahs.shtml>>, and it can also be found at: <<http://www.swanet.org/zarchives/aahs/>>.

ARIZONA STATE MUSEUM NEWS

Mission Photograph Exhibit Highlights Images of Faith

by Paul Ingram

Since the arrival of Europeans and the subsequent construction of missions throughout the American Southwest and Mexico, images of mission churches have become iconic to the region. With the advent of photography, artists have sought to capture the west, and some have attempted to do so using different artistic viewpoints.

The romantic pictorialism of Edward Curtis and the hard documentary of Kozo Miyoshi are represented in the Arizona State Museum's newest exhibit, *Images of Faith: Mission Photography from the Sonoran Desert*. This photographic collection, only a small sampling of the museum's extensive archive of photographs, includes images by Forman Hanna, Tad Nichols, and Helga Teiwes.

Several images of San Xavier del Bac, one of the most recognized missions of the Southwest, document the church before and during restoration. The collection also incorporates mission photographs from New Mexico, including several pictures of community missions by Miyoshi.

Along with the photographs, *Images of Faith* also includes a computer reconstruction of Mission San Agustín, which uses three-dimensional techniques to display a model of the mission as it once was, along with pictures of the contemporary ruins. A cast copper alloy bell from the Macayahui Mission in Sonora, Mexico, completes this fantastic exhibit.

The exhibit runs from December 23, 2006 through June 24, 2007, in the east gallery of the museum.

The exhibit represents part of a great photographic collection rarely seen by the public. This is an opportunity to see very different photographic personalities.

—Davison Koeing
Senior Exhibit Specialist,
Arizona State Museum

IMPORTANT ANNOUNCEMENT — THE KIVA

AAHS members have, by now, received one copy of *The Kiva* 72(1) with printing errors and a letter of apology and explanation from AltaMira Press. 72(1) is being reprinted and should be in your mailboxes soon. AltaMira has taken steps to ensure that such errors will not happen again. AAHS would like to request that you tear off the covers, recycle, or otherwise creatively dispose of the original issue of 72(1).

2007 CALENDAR FOR *LA GENTE DEL PRESIDIO* (THE PEOPLE OF THE PRESIDIO) AND OTHER LIVING HISTORY ACTIVITIES

Once again during the 2007 winter season, we are presenting our program interpreting Spanish Colonial life in Tucson's presidio (*La Gente del Presidio*). We will be in the La Casa Courtyard, Tucson Museum of Art and Historic Block, on Saturday afternoons on the dates and times listed below.

Participants in this program dress in clothing of the period and present some of the essential skills of the day, such as carpentry with hand-tools, spinning cotton and wool into thread, and making tortillas over an outdoor fire. We also have foods and medicines of the period to sample. Sybil's *posole* is delicious! Come and join us!

February 3, 10, 17, 24; 1:00–3:30 p.m.	<i>La Gente del Presidio</i>
March 3, 10, 17; 1:00–3:30 p.m.	<i>La Gente del Presidio</i>
March 24; 10:00 a.m.–6:00 p.m.	Presidio Street Festival

UPCOMING ARIZONA STATE MUSEUM EVENTS

Southwest Indian Art Fair

February 24-25, 2007

10:00 a.m.–5:00 p.m., Saturday; 10:00 a.m.–4:00 p.m., Sunday

Meet 200 of the most renowned Native artists, including SWIAF 2007 Featured Artist Upton S. Ethelbah, Jr. Shop for top-quality artwork, including pottery, Hopi kachina dolls, paintings, jewelry, baskets, rugs, blankets, and much more. Artist demonstrations, Native foods, music, and dance performances. ASM members admitted one hour early on Saturday for best selection and to enjoy a light breakfast. Volunteers are needed. If interested, contact: Volunteer Program, Arizona State Museum, University of Arizona. [Entry fees apply]

OLD PUEBLO ARCHAEOLOGY

5100 W. Ina Rd., Tucson, AZ 85743
520.798.1201, <info@oldpueblo.org>

"Third Thursdays" Lecture Program
7:30 p.m., Old Pueblo Auditorium

February 15, 2007: Laura Tohe, *Women in Charge of Themselves: Southwestern Matrilineal Cultures*

March 15, 2007: Jay Craváth, *Kokopelli: Mystery of a Flute Player*

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
- \$100 **Supporters** receive *Glyphs*, *Kiva*, and all current benefits
- \$250 **Sponsors** receive *Glyphs*, *Kiva*, and all current benefits
- \$1,000 **Lifetime** members receive *Glyphs*, *Kiva*, and all current benefits

For memberships outside the U.S., please add \$20.00.

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

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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, 12 issues of the monthly newsletter *Glyphs*, and member rates for Society field trips and other activities.

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

Doug Gann, VP Membership
Arizona Archaeological and Historical Society
Arizona State Museum, University of Arizona
Tucson, AZ 85721 USA

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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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.