Figure 2. Remains of the “temple” built in 1881 in the Mormon community of Forest Dale.

Photograph by E. W. Haury, 1941, and reprinted with permission by the University of Arizona Press.

Next AAHS General Meeting: December 20, 2004
http://www.statemuseum.arizona.edu/aahs/aahs.shtml
Historic preservation laws were enacted because of public concern that thousands of the nation’s important prehistoric and historic sites, buildings, and objects were being destroyed every year by federal government-sponsored public works.

Arguably, the most important of the preservation laws is the National Historic Preservation Act (NHPA) of 1966, as amended. NHPA established the national historic preservation program and the State Historic Preservation offices. Additionally, the Act authorized the Secretary of the Interior to maintain the National Register of Historic Places; it established a grant program (for which currently there is little money); and it created the independent Advisory Council on Historic Preservation, among others.

An important part of the Act is its Section 106, which requires federal agencies to consider the effects of the actions on cultural resources, or “historic properties,” eligible for, or listed on, the National Register. This section defines the process of consultation that agencies should follow to assess the impacts a planned undertaking may have on historic and cultural properties. In the course of this process, the agency identifies ways to mitigate or avoid adverse effects on Register-listed or -eligible properties.

The Advisory Council, which administers Section 106, passes most of the responsibility to the appropriate State or Tribal Historic Preservation Officer to carry out the day-to-day operations.

The first step in the Section 106 process is to determine if the proposed federal action is an “undertaking” and to define the “area of potential effect.” An undertaking is an action under the direct or indirect jurisdiction of a federal agency, such as building or modifying a dam (for example, the recent remodeling of Roosevelt and Waddell dams by the Bureau of Reclamation), or projects that involve federal funds, permits, licenses, approvals, or delegated activities. An example of the indirect type is the recent Corps of Engineers 404 permit issued to a developer in Tubac, Arizona. This permit was issued for private property because of project impacts to a major wash, which falls under the purview of the Corps.

The area of potential effect is the geographic area within which an undertaking may affect cultural resources.

Once the undertaking and area of potential effect have been defined, each project goes through a five-step review process: identification and evaluation of historic properties, determination of effects, consultation, Advisory Council comment, and notification to proceed. It is in the identification and evaluation step that contract archaeology comes into play. Archaeologists contract to locate and study cultural resources so that a determination of the effects of the project on National Register-eligible sites can be made. If the Section 106 review results in a Council-accepted agreement, the agency proceeds with its proposed activity.

I would like to thank Carol Griffith, Arizona State Historic Preservation Office, for providing information about the review and compliance process.

James E. Ayres (Jim), President
A renewed interest in examining ethnicity and identity through material culture has emerged in the field of historical archaeology. Ethnic identity was a significant structuring principle in past societies; therefore, understanding ethnicity and its corresponding archaeological manifestations is a necessary precondition for generating a complete picture of the past. A brief period of contact between the White Mountain Apache tribe and Mormon colonists in the Forestdale Valley creates a unique opportunity to study the expression of distinct ethnicities in material culture, using archaeological data, the documentary record, and oral history.

The Forestdale Valley is a lush area, approximately eight miles south of Show Low, on the Fort Apache Reservation. In 1877 Oscar Cluff discovered the valley while hunting, and a year later, he and several other Mormon families founded a colony in the area, which they called Forestdale. The Mormons, in pursuit of missionary goals, allowed several Apache families to return to their traditional farm plots in the valley, but their missionary attempts failed, and the Apache families demanded the removal of the settlers. In 1879, a senior officer at the San Carlos Indian Reservation affirmed that the valley was part of the reservation, and asked the Mormons to vacate the area. In 1880 General Carr, the new commanding officer at Fort Apache, allowed the Mormon settlers to return to re-colonize Forestdale. Twenty Mormon families went back to renew their colony and build a church; however, Apache families returned to the area to plant their summer fields and officials at Fort Apache again ordered the Mormons to leave.

An examination of the archaeological record from this period not only yields invaluable information about the daily lives of both communities, it also provides a chance to study the creation and maintenance of ethnic boundaries.

Speaker Lauren Jelinek received her B.A. from UC Santa Barbara and is currently a Master's candidate in the Anthropology Department at the University of Arizona. Her research interests include ethnicity, exchange, Spanish colonialism, the Southwest, California, and the Borderlands.
2004 AAHS RAFFLE

The Society will hold its annual raffle at this month’s meeting. Proceeds from the raffle are the sole source for a scholarship fund for Archaeology students. Our members put in a great deal of effort running the raffle and delivering the prizes, and would appreciate your support.

If you still have tickets that were bound into last month’s Glyphs, please turn them in with your contribution. If you choose not to donate, you may enter the drawing by returning ticket stubs and this article with this box clearly checked to indicate your choice: □ I do NOT choose to donate, but wish to be included in the drawing.

All ticket stubs submitted need to be completely filled out to facilitate delivery of awards. If you would like to contribute a prize for the raffle, you can send it to the same address or bring it to the meeting. This year we have a great list of prizes. Perhaps you could be a winner!

To date we have received the following gifts for this year’s raffle:

La Posada Hotel-Winslow — one night stay
Tom Bahti — two pieces of jewelry, Kokopelli on motorcycle, sterling beret
Tohono Chul Park — 1 year family membership
U of A Press — 3 books: Don’t Let the Sun Step Over You; Navajo Weaving Late 20th Century; Settlement of the American Continent
Xanterra — 3 days/2 nights at Maswik Lodge or Avapai Lodge; also Hermit’s Rest and Desert View tours (Grand Canyon)
Western National Park Association — 3 books: The Casas Grandes World; Guide to National Parks of the SW; Those Who Came Before
Tucson Botanical Gardens — 4 guest passes
Verde Canyon Railroad — 2 adult passes
Los Abrigados Lodge — one night’s stay for two
Statistical Research — 5 books: Vanishing River (with CD ROM); Islanders & Mainlanders; Prehistoric Painted Pottery of S.E. AZ; 60 Years of Mogollon Arch.; Rivers of Rock
Center for Desert Archaeology Center membership and Adriel Heisey exhibit catalog
Arizona State Museum — Blanket Weaving in the SW
University of Utah Press — 3 books; Chauvet Cave; Entering America; Cataract
Canyon Durango & Silverton RR — 2 passes
Arizona Theater Co. — 2 tickets
Laurie Webster — her book, The Weavers Art
Mel Copeland — Mata Ortiz Pot

This year’s raffle will be held at the AAHS meeting on Monday, December 20, at Duval Auditorium, University Medical Center
Call 520/577-6079 for further information

AAHS JULIAN D. HAYDEN STUDENT PAPER COMPETITION

AAHS’s seventh annual Julian D. Hayden Student Paper Competition is now accepting papers. The winning entry receives $500 and publication of the paper in Kiva, The Journal of Southwestern Anthropology and History. The competition is open to bona fide undergraduate and graduate students at any recognized college or university. Deadline for receipt of submissions is January 15, 2005.

For more information, see last month’s issue of Glyphs or contact Homer Thiel at <homer@desert.com> or log on to: <http://www.statemuseum.arizona.edu/aaahs/hayden_comp.shtml>.
THE BOTANICAL ACTIVITIES OF CYRUS PRINGLE IN ARIZONA, 1881-1884, AND A DIGITAL ARCHIVE OF HIS COLLECTIONS

by Kathryn Mauz, University of Arizona, kmauz@u.arizona.edu

Introduction

Cyrus Guernsey Pringle (1838-1911) was widely acknowledged in his time as one of the foremost plant collectors in North America. He is best known as the founder of the Pringle Herbarium, now housed at University of Vermont, and for an unparalleled botanizing career in Mexico between 1885 and his death in 1911. Less well known is the history of Pringle’s earliest commissions, from 1881-1884. I have used literature citations, herbarium collections, and historic documents to reconstruct his itinerary during this time frame. This story, along with the plant catalogue that grew from Pringle’s activities in the West, will be a contribution to the history of Western botany that has not before been synthesized. Part of this effort has resulted in a digital photographic archive of Pringle’s Arizona sheets housed at the University of Vermont, that will be accessible through the University of Arizona Herbarium.

Pringle’s Occupation and Itinerary

Pringle began what became annual trips to the western United States by collecting wood specimens on behalf of Charles Sargent, as Sargent prepared the U.S. Census of American Forests and coordinated collecting for an exhibit of American woods mounted by the American Museum of Natural History. At the same time, Pringle collected plants for Asa Gray at Harvard, who continued to expand and revise his Synoptical Flora of North America; sent specimens to botanists specializing in such groups as ferns, grasses, sedges, lichens, fungi, and algae; and collected sets for distribution and sale. His itinerary came to include the length of western California, Oregon, and southern Washington Territory; northern Lower California, northwestern Sonora, and southern Arizona.

At present, there number in excess of 1250 collections in Pringle’s Arizona catalogue. The assemblage includes at least 135 type specimens (collections upon which the descriptions of new species or varieties were based) from Arizona, and spans the plant kingdom from lichens and algae to mosses, conifers to flowering plants. More than half of Pringle’s Arizona collections come from a handful of the Sky Islands. These include the Santa Catalina, Santa Rita, Huachuca, Empire,

(Continued on page 6)
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Mustang and Baboquivari mountains. Pringle collected true desert plants at various lowland localities near Phoenix and in the Gila River valley, and frequently in the Sierra Tucson (now the Tucson Mountains). In 1884, he made month-long trips via the Altar Valley to northwest Sonora, in March and August.

In each of the four years that he visited Arizona, Pringle spent a few to several days collecting on the Santa Cruz River and Rillito in and near Tucson. He collected, at least occasionally, at cienegas and marshes elsewhere (e.g., Arivaca, Pantano). Literature and herbarium records indicate that, prior to Pringle's work in 1881-1884, only a handful of plant collections were made in the riparian areas of the Tucson Basin. Botanists J.T. Rothrock in 1874, and J.G. Lemmon in 1880, each worked near Fort Lowell. Will Parish collected near Fort Lowell in the spring of 1884. James Toumey, first curator of the University of Arizona Herbarium, made several collections in the 1890s, and David Griffiths also assembled a small catalogue from these valleys in 1900-1901. It was not until J.J. Thornber arrived at the University in 1901, that collection in the Santa Cruz and Rillito valleys resumed in earnest. Pringle's contributions from the riparian areas of the Tucson Basin number on the order of 180 taxa, and add significantly to our early knowledge, at the species level, of these vegetation communities that have since largely disappeared.

Digital Image Archive

Representatives of nearly all of the vascular plant specimens, and a sample of the non-vascular plants, in Pringle's Arizona catalogue were digitally photographed at the University of Vermont's Pringle Herbarium (e.g., Figure 1). The process of assembling, cross-referencing, and updating Pringle's Arizona catalogue is ongoing. This resource will eventually contain a full accounting of the plants he collected in Arizona in the years 1881-1884, and will be made available through the University of Arizona Herbarium's Web site. Currently, the Agavaceae (Agave Family) is presented as an example, with links to standard database information, taxonomic revision when applicable, citing literature, and images of the specimens. See: <http://ag.arizona.edu/herbarium/pringle>
Summer of 2004 marks the tenth year of field work by the UA Field School/Silver Creek Archaeological Research Project in the Mogollon Rim area, directed by Dr. Barbara Mills. For the last three summers, this work has been in collaboration with the White Mountain Apache Tribe (WMAT) and the Sitgreaves National Forest, with funding from the National Science Foundation (NSF) Research Experiences for Undergraduates Sites Program. Field work on the Fort Apache Indian Reservation has been conducted in cooperation with the WMAT Heritage Program’s Historic Preservation Officer, Dr. John Welch, who is co-PI with Barbara Mills on the NSF-REU project.

Besides teaching field and laboratory techniques, a major goal of the Field School has been to teach students the ethical and practical aspects of conducting collaborative fieldwork with a focus on heritage preservation. Dr. T. J. Ferguson coordinated a six-part series on ethics and legislation relating to issues about working with and for tribes. Visiting speakers from the Zuni, Hopi, and Apache tribes contributed important insights. All field work was designed with the WMAT to contribute to the Tribe’s resource management interests. A similar approach was used to design the excavation program on the Sitgreaves National Forest.

Fieldwork on the Fort Apache Indian Reservation included ruins preservation, damage assessment, full-coverage survey in the Forestdale Valley, and total station mapping of several large, late precontact sites. Mapping, surface collections, and excavations focused on Ancestral Pueblo sites on Forest Service land.

**Ruins Preservation**

The UA Field School worked with Todd Metzger and the NPS Vanishing Treasures Program to document, assess, and stabilize portions of Kinishba Ruin, a National Historic Landmark located near Fort Apache. In a form of archaeological poetic justice, students worked on the eastern room block, which had been reconstructed by Byron Cummings following excavations by the UA Field School in the 1930s. A new map of the unexcavated room block at Kinishba was also completed under the direction of Dr. Charles Riggs.

**Mapping and Damage Assessment**

One of the goals of the Field School was to aid the Tribe’s efforts to record and repair the impacts from illegal pot-hunting in the Forestdale Valley. Detailed maps of the Forestdale Ruin and Tundastusa were completed, including the location of all looted areas. The damage assessment used the new SAA guidelines for ARPA documentation and investigation. Damage assessment included recording information on a standard form (Continued on page 8)
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designed by the Field School and the WMAT HPO, photography, three-dimensional contour mapping, and artifact analyses.

The results of this work include new estimates on the size and dating of the two largest Ancestral Pueblo sites in the valley. The Forestdale Ruin is estimated to have approximately 100-150 rooms that date to the late 12th through early 13th centuries. Tundastusa is estimated to have 400-450 rooms dating to the late 13th through 14th centuries, with a significant occupation in the AD 1325-1400 period. In addition to new archaeological information, the detailed recording and site restoration conducted by the Field School will provide the Tribe with a means of assessing any new damage that might occur.

Survey

During the past three years, the Field School implemented a systematic 100% survey of the Forestdale Valley. Some sites had been recorded by Emil Haury in the 1930s in conjunction with his fieldwork in the Valley, and others had been recorded by the WMAT Heritage Program. We surveyed approximately three square miles and recorded 124 sites. Of these, 82 have precontact components and 54 have historic components. Sites were recorded using the Arizona State Museum guidelines and entered into a stand alone version of AZSITE. Accomplishments include a concordance of previously recorded sites and new recording of late 19th and early 20th century Apache sites and a range of precontact sites dating from the early pithouse period to the late 14th century. The data will be used in ongoing research by SCARP to investigate occupational continuity in the valley and changes in community organization leading up to the large, aggregated settlement at Tundastusa. A master’s thesis on the historic occupation of the valley, including Apache and Mormon sites, is being prepared by UA student Lauren Jelinek using oral history and archaeological sources. (See her article, p. 5, this issue.)

Excavation

During the 2002 season, excavations at a small field house site were aborted when the Rodeo-Chediski fire swept through the area. Although we did return to our camp and to field work in the For-

(Continued on page 10)

SCHOLARSHIP AND GRANTS APPLICATIONS AVAILABLE

The Arizona Archaeological and Historical Society is pleased to announce that grant and scholarship applications for the year 2005 will be available November 1. Scholarships and grants in amounts up to $500.00 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, 2005 to be eligible for consideration. Applications can be obtained from some student advising offices, the AAHS web-page <http://www.statemuseum.arizona.edu/aahs/aahs_grant_info.shtml>, or simply by contacting Laurie Webster at: <Lwebster1@mindspring.com> (don’t forget the “1”).
HERITAGE GRANT TO ASM IS ONE OF LARGEST EVER

On September 17, 2004, Arizona State Museum researchers Barnet Pavao-Zuckerman, Rich Lange, and Charles Adams attended a ceremony held by the Arizona Game and Fish Department to celebrate the 10th anniversary of the Heritage Grants program. In July, the researchers were awarded $91,815 in grant money to study the wildlife conservation applications of archaeological data. At the Heritage Celebration, Barney, Rich, and Chuck received a symbolic “big check” made out to the University of Arizona. The ceremony was held at the historic visitors center at Sipe White Mountain Wildlife Area, in the shadow of Escudilla Peak.

The grant is one of the largest awards in the 10-year history of the Heritage Grant program. The award, along with $131,527 in matching funds by the University of Arizona and Arizona State Museum, will fund the excavation and study of animal remains from Chevelon Pueblo (Homol’ovi Research Program) in order to assess the utility of archaeological information to wildlife management practices, and will result in the creation of a comprehensive interactive mapping database of Arizona archaeological faunal remains. This GIS-linked database will be the first of its kind in North America and will be made available for use by wildlife managers and biologists, as well as archaeologists. In particular, the database will be useful to wildlife managers working on habitat reconstructions, or native species reintroductions. The database is comprehensive in that it will include all mammal, bird, reptile, amphibian, and fish remains from known zooarchaeological assemblages in the state of Arizona.

Chevelon Pueblo is a 13th and 14th century Hopi village located at the confluence of the Little Colorado River and Chevelon Creek. Because of its location, Chevelon is particularly attractive for examining prehistoric uses of aquatic resources, particularly fish. With the support of Arizona Game and Fish, future excavations will focus particularly on the recovery of native Arizona fish remains, particularly remains of the endangered Razorback Sucker (Xyrauchen texanus). Chevelon will be a test case for the application of archaeological information to the development of management plans for specific species, and for evaluating the usefulness of archaeological data to reconstructing the presence and distribution of native species in Arizona.

The project is extremely innovative in its approach. While zooarchaeologists have recognized for several decades the possible applications of our understanding of historic and prehistoric ranges of taxa to contemporary conservation issues, it is only recently that these kinds of applications have been employed. The Game and Fish funded project is an impressive start to what will certainly be an important and fruitful collaboration between archaeologists and managers.

For more information, contact:
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>
estdale Valley following containment, no further excavations were conducted that summer. Excavations over the past two years were conducted at sites on the Sitgreaves Forest within the Rodeo-Chediski burn area with both research and preservation goals. In 2002 we excavated at the 11th-early12th century site of Cline Point, which has a 23m diameter unroofed great kiva and a 6-8 room roomblock. The site is located 1 mile north of the Mogollon Rim (7000 elevation) and is the south-westernmost great kiva site in the Silver Creek cluster. A summary paper is being prepared for publication that compares this site to other great kiva sites in the Silver Creek cluster.

This past summer we excavated an early pithouse period site at Hall Point dating to the period between AD 200-600. The site has seven circular pitstructure depressions of which two were partially excavated, revealing floor features and burned roofing material. Based on the presence of plain brown ware without smudging or associated red or white wares, the site appears roughly contemporary with the Forestdale Valley’s Bluff Site. Christopher Roos directed excavations and is including the material in his dissertation research at the University of Arizona.

Summary

Although 2004 was the last year of field work in the Mogollon Rim area for the U of A Field School/Silver Creek Archaeological Research Project, analysis and write-up of the project results will continue over the next several years. Materials collected from WMAT land will be curated at their museum/cultural center and those from Forest Service land at the Arizona State Museum. Meanwhile, the collections from all field seasons since 1993 are housed in the SW Archaeology Lab, Department of Anthropology, UA.

For more information about the project, including summaries of the previously excavated sites, and a project bibliography, see the SCARP web page: http://infocenter.ccit.arizona.edu/~scarp/index.htm.

UPCOMING EVENTS AT ASM

Saturday, December 11, 2004, 1-4 p.m.
CULTURE CRAFT SATURDAY:
NAVAJO WEAVING!

Navajo weavers Roy Kady (Teec Nos Pos, AZ) and Tahnibaa Naataanii (Shiprock, NM) share their expertise in weaving, dyeing and felting. Use natural dyes to color a skein of wool and make a felted wool piece. (free family fun!)

Thursday, December 9, 2004, 7–9 p.m.
NAVAJO WEAVING NOW!

Celebrate the publication of Ann Lane Hedlund’s new book, "Navajo Weaving in the Late Twentieth Century: Kin, Community, and Collectors" (University of Arizona Press). Dr. Hedlund’s slide-illustrated lecture, Navajo Weaving Now!, CESL auditorium. Reception, booksigning, and exhibition follow the lecture at Arizona State Museum. (Students free, $5 ASM and GFR members, $8 general.)

Be sure to see the exhibition "Navajo Weaving at Arizona State Museum: 19th C. Blankets/20th C. Rugs/21st C. Views," continuing through May 1, 2005!
AAHS MEMBERSHIP/SUBSCRIPTION APPLICATION
(A membership subscription makes a great holiday gift!)

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

$30 Glyphs membership receives the Society’s monthly newsletter, Glyphs
$30 Student Kiva membership receives both Glyphs and Kiva; $15 receives Glyphs
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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 in order to receive the Society’s publications and participate in its activities at discount rates.

Memberships and subscriptions run for one year beginning July 1 and ending June 30. Membership provides one volume (four numbered issues) of Kiva, the Journal of Southwestern Anthropology and History; 12 issues of the monthly newsletter Glyphs; member rates for Society field trips and other activities.

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

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

Subscriptions to Kiva for libraries and other institutions are now being handled by AltaMira Press. To obtain information on an institutional subscription to the journal, contact the publisher at <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.