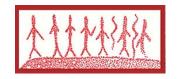
Verde Valley Archaeology Quarterly



Protecting the Ancient Cultural Heritage of the Verde Valley

Winter 2013-2014

Reciprocal Museum Benefit



Were you aware that the Center is a member of the Reciprocal Museum Association? For members at the \$100 or higher level, we affix a gold sticker that provides free admission and gift shop discounts at over 640 museums in the U.S., Canada and Mexico. In Arizona this includes: Museum of

Northern Arizona; Heard Museum; University of Arizona Art Museum; Sedona Historical Museum; and, the Sedona Arts Center. The complete list of participating museums can be found on our website at the Join and Support/Membership page.

Have you visited our YouTube Channel?



Yes, the Center has had a YouTube Channel almost from our beginning. It contains videos of past lectures. We have 118 subscribers and have had almost 12,000

views of our videos. If you visit YouTube, check us out and subscribe to our channel. We will be adding more videos during 2014 including Dr. Bostwick's talk on the Verde Salt Mine.

Center Continues Wingfield Mesa Survey

The VVAC is aiding the Coconino Forest Service in surveying some land east of Camp Verde. Survey entails walking the land and identifying archaeological artifacts and sites. When the sites are identified they are mapped, artifacts analyzed and the site recorded. All this then goes into a nationwide data base.

This fits into a larger picture of the pre historic land use and aids in interpretation for the Forest Service Archaeologist. If you would like to help with this survey visit the Research Lab at the Center on Thursdays to talk to some of those involved.



Archaeology Trip to Peru

We finished out the year with some fantastic events. October ended with the Center's International Archaeology trip to Peru which was a great success. We started by visiting the site of Caral, discovered only 19 years ago. It is the oldest city in the Americas. Other highlights of the trip were the Nazca Line, Machu Picchu and Lake Titticaca. Stand by for some great lectures on Peru by Dr. Bostwick, who collected a wealth of information.



You Can Help With Our Future Exhibits

To keep the Center fresh, we will be developing special short-term exhibits that will rotate about every four months. By the time you



receive this issue, we will have set up a display on prehistoric pottery making techniques. This display will be in the Center through May. In June we will be opening a display in conjunction with CornFest that will be on

prehistoric corn planting, both methods and types and uses of corn. Then in October we will open a display in conjunction with Fort Verde Days on prehistoric dogs.

You can help with these exhibits. For the corn exhibit we are looking for Native American art depicting corn plants. This can

be pottery, katsinas, carvings or paintings. For the prehistoric dog exhibit we will need similar art objects depicting dogs. If you have any such items, and would be willing to loan the items to the Center on a short-term basis, please contact Ken Zoll in the Center office for more information.



President's Report

Dr. James Graceffa

The Center starts the New Year with excitement and high expectations. November started with a 2 day field trip put together by John and Lisa Ward to Homolovi State Park and the Rock Art Ranch. We had 40, the most ever, members to attend the field trip. All chose to spend the night at the famous La Posada Hotel with fine dining and camaraderie. Trips like this will be repeated if there is a demand. Also in November, Wendy Hodgson MA of the Arizona Botanical Garden shared her knowledge of the pre-historic cultivation of the Agave plant.

Renowned geologist, Dr. Wayne Ranney, started December with a Geology Class of the Verde Valley. Interest by members was so popular we had to offer a second class. I am sure his class will be an annual event. Dr. Ranney also does 7 day geology trips down the Colorado River. Some of us will be going in May, but he will go again in September. Contact the Center of you are interested.

The member's appreciation event in December at the Center was attended by many of you. The wine flowed and everyone had an enjoyable evening. As always happens this time of year we honor our volunteer of the Year. This year it was hard to pick just one so we settled on two members who have given selflessly of their time. Our two honored volunteers were Sharon Olsen and Jo Parish. As you all know the Center is a volunteer organization and it is because of all of you that we are succeeding.

For 2014, Mary Kearney, MA, RPA, has started the Center off with some great classes. First we have a class by Frieda Ann Eswonia a full-blood Yavapai, she will teach us all about the Yavapai People. Then the end of January we have a Pottery Identification Class ending with "in field" experience. In April Al Cornell will give a class on Pre-historic Pigments. I have seen it and you do not want to miss this one.

Dr. Todd Bostwick, our Director of Archaeology, has plans involving surveys of two sites in the Verde Valley. We are continuing the survey at Wingfield Mesa. This is a huge chore. Thank all you survey people who are working at Wingfield Mesa.

Kim Spurr, Principal Investigator at the Museum of Northern Arizona and a member of the Center's Board of Directors has lined up some great speakers. If you can make it to any or all of them you will not be disappointed. Let's all show Kim our appreciation by attending these lectures

Things are really starting to happen with our Children's Discovery Area. Marie Palowada, archaeologist and muralist, has started the interactive mural for the Center. The rest of the team is working on activities to be included in this area. When it is completed we will have a preview for members. All you parent's, grandma's and grandpa's will want to check it out. It will be a great place to bring young children when they visit.

Our Executive Director, Ken Zoll is busy working on the Archaeology Fair to be held the end of March. This one will have more events than we have had in the past. Besides our exhibits and Native Artists, we will have two days of films and lectures open to the public. Volunteers are always needed. It makes no difference if you do not know anything about archaeology. There are numerous activities that you can be involved in. Please call or e-mail the Center. There is a place for your help.

I would also like to thank all of you who responded to our end of the year donations plea. You can't imagine how this helps the Center. We continue to work to acquire a building of our own to be a fully accredited Museum while greeting visitors at our present location. All the members should be proud of the positive feedback we receive from these visitors. And, another thank you, to ALL the members who make the Center possible by your membership.



The mission of the Verde Valley Archaeology
Center is to preserve archaeological sites and
collections, to curate the collections locally,
and to make them available for research and
education; to develop partnerships with
American Indians, cultural groups and the
communities it serves; and to foster a deeper
understanding of prehistory and American
Indian history in the Verde Valley through the
science of archaeology.

Executive Director & Editor Kenneth J. Zoll, MBA Director of Archaeology Todd Bostwick, PhD, RPA

Board of Directors

Dr. James Graceffa, President Lynette Kovacovich, Secretary Bud Henderson, Treasurer Mary Kearney, M.A., RPA.

Vice-President
Keith Greiner
Kate Compton-Gore, M.A.
Denise Kelly
Stanley Loft
Lee Silver
RJ Smith
Kimberly Spurr, M.A., RPA
John Ward
Robert Whiting

Advisory Council
Steve Ayers
Town of Camp Verde
Chris Coder
Yavapai-Apache Nation
Stewart Deats
EnviroSystems Management
Matt Guebard
National Park Service
Leigh Kuwanwisiwma
The Hopi Tribe
Peter Pilles, Travis Bone
Coconino National Forest

Verde Valley Archaeology Center, Inc. a 501(c)(3) nonprofit corporation

385 S. Main St. Camp Verde, AZ 86322-7272 (928) 567-0066

www.verdevalleyarchaeology.org center@verdevalleyarchaeology.org

Volume 3, Number 4 © 2014 Verde Valley Archaeology Center

The Archaeological Record

The Salt Mine of Camp Verde

Todd W. Bostwick, PhD, Director of Archaeology

The Verde Valley was once the location of a freshwater lake, created when the ancestral Verde River became blocked through a combination of faulting, basin subsidence, and volcanism in the late Miocene and early Pliocene periods. The supersaturation of the confined lake water ultimately caused the dissolution of the minerals into layers of halite (crystal salt), gypsum, and other minerals in the Camp Verde area (Ranney 2010).

Salt deposits in Camp Verde were noticed by military officers stationed at Camp Verde in the 1870s, but it wasn't until the early 1920s that commercial mining of the salt began. The salt was sold to firms as far away as Norway and Sweden to be used in the manufacture of glass and paper. The Verde salt mine ceased operation in the 1930s due to foreign competition.

In 1926, the mine superintendent informed the American Museum of Natural History (AMNH) in New York that prehistoric artifacts and mummies had been found in the salt deposits. Earl Morris of the AMNH visited the salt mine that year and was given a number of artifacts uncovered by the steam shovel operations. Byron Cummings, Director of the Arizona State Museum (ASM), heard of the discoveries, visited the mine in 1926 and 1927, and obtained numerous artifacts and three mummified human remains from the mine. Morris (1928) published a brief report on his visit, noting that four prehistoric tunnels were present in the 100-feet tall cliff exposure; one of the tunnels was at least 200 feet long. Cummings failed to write a report about his visits. Both Morris and Cummings believed the humans buried in the salt mine died of cave-ins.

No further study of the mine's contents were undertaken until Nancy Jo Chabot (1992) re-analyzed more than 125 artifacts in the AMNH and ASM for her Master's thesis at SUNY-Binghamton in New York. Chabot obtained radiocarbon dates (AD 1336-1413) on five wooden pick handles and a bark torch from the salt mine, dating the artifacts to the Tuzigoot phase of the Sinagua Culture. More recently, I reanalyzed the artifacts at the ASM and examined 20 salt mine artifacts donated to the Museum of Northern Arizona in the 1930s. Chabot and I gave a paper on the salt mine at the Verde Valley Archaeology Conference, sponsored by the Verde Valley Archaeology Center, in October 2012.



Juniper bark torch from the Verde Salt Mine

A variety of Sinagua artifacts were recovered from the salt mine. These include 33 three-quarter groove stone picks, including broken pieces, and more than a dozen hand-held picks used for mining the salt. In addition, 49 J-shaped wooden hafts were found, used as handles for the three-quarter groove picks. Other tools consist of 14 bark torches, 2 brooms, 3 wood fire-drills and a fire-drill hearth, 5 wooden sticks interpreted as digging sticks and prayer sticks, and 5 twig bundles that may have served as prehistoric backpacks. There were also 14 woven-fiber sandals, two coiled basketry plagues, woven mat fragments, two wooden weaving tools, pieces of loom-woven cloth, a cane cigarette, marine shell bracelets, and small pieces of maize and charcoal. Many of the sandals were salt encrusted, indicating they had been worn by the Sinagua in the salt mine.

The Verde salt mine is not the only prehistoric salt mine in the Southwest. Another salt mine was discovered in the 1920s near Overton, Nevada, by Mark Harington (1925). Numerous hafted stone picks and woven sandals also were found in the Nevada mine, with the salt extracted by Ancestral Pueblo people. Salt has always been considered a sacred commodity used for trade and as a condiment in the Southwest, and several groups have oral traditions about an important deity called Salt Women. The Hopi, Zuni, O'odham, and other native people made long journeys to obtain salt, with important ritual activities associated with those journeys. The Sinagua also may have traveled from distant pueblos to obtain salt from the Verde Salt Mine and left offerings to Salt Women in thanks for this precious commodity.



3/4 groove stone pick

References Cited

Chabot, Nancy Jo

1992 Back From the Salt Mines: Reinterpreting the Verde Salt Mine Site. Unpublished M.A.Thesis, State University of New York at Binghamton. Harrington, Mark R.

1925 Ancient Salt Mine Near St. Thomas. Indian Notes 2(3):227-231.

Morris, Earl H.

1928 An Aboriginal Salt Mine at Camp Verde, Arizona. Anthropological Papers of the American Museum of Natural History, Vol. 30, Part 3, pp. 75-97. NY. Ranney, Wayne

1989 The Verde Valley: A Geological History. Plateau 60(3).





International Archaeology Film Festival The Flying Archaeologist

This year's Festival features a VVAC Exclusive! Archaeologist Ben Robinson flies over ancient sites in the UK to reveal new evidence of civilizations revealed by aerial surveys. These four 30-minute episodes have never been seen in the United States.

Friday, March 28, 7:00 pm -- Camp Verde Auditorium Theater, 370 Camp Lincoln Road, Camp Verde Tickets available online, at the Center or at the door. \$10 (\$8.50 members)



A Cultural Crossroads: Discovering the Baca Mountain Tract

This is the official Arizona debut of a cultural resources short subject film made by the Rio Grande National Forest (just north of the border). The film highlights a gem on the Rio Grande National Forest that is rich in archaeology.



The Thames' Secret War

The Thames is a surprisingly rich source for aerial archaeologists especially the Hoo Peninsula. The Hoo Peninsula became an important line of defense and a testing ground for experimental military endeavor during the 19th and early 20th centuries. Its remoteness and wide open spaces made it a good choice for the highly dangerous business of manufacturing the explosives that kept the Royal Navy fighting. It may come as a surprise to many that archaeological effort is being invested in recording and protecting the most significant examples of the remains of the fairly recent military past. However, natural erosion and

development are threatening the heritage of the Hoo Peninsula. It is this heritage that connects us to the history of some of the darkest hours and most momentous chapters in the nation's history. Archaeologist Ben Robinson flies over the Thames to uncover new discoveries about World War 1. A whole network of trenches has been discovered. Invisible from the ground, they were recently found from aerial images of the area next to the former Chattenden Barracks.



Hadrian's Wall: Life on the Frontier

Archaeologist Ben Robinson flies over Hadrian's Wall to reveal a new view of its history. The first full aerial survey of Hadrian's Wall has helped uncover new evidence about the people who once lived there. Carried out over the last few years by English Heritage, it is allowing archaeologists to reinterpret the wall. Across the whole landscape hundreds of sites of human occupation have been discovered, showing that people were living here in considerable numbers. Their discoveries are suggesting that far from being a barren

military landscape, the whole area was richly populated before during and after the wall was built. There is also exciting new evidence that the Romans were here earlier than previously thought.

Saturday, March 29, 7:00 pm -- Camp Verde Auditorium Theater, 370 Camp Lincoln Road, Camp Verde Tickets available online, at the Center or at the door. \$10 (\$8.50 members)



Touchstone: The Rock Art of the Coa Valley

This documentary is about the Paleolithic figures discovered along ten miles of the Coa riverbeds in Portugal. Since its discovery in 1995, the site has been considered the most important archeological complex of outdoor engraved Paleolithic rock art in the world. These animal and human figures represent some of the earliest known attempts by humankind to record and express ideas.



Norfolk Broads

Archaeologist Ben Robinson flies over the Broads where aerial photos have discovered a staggering 945 previously unknown ancient sites. Many are making historians rethink the history of the area. The fate of the Roman town of Caistor St Edmund has puzzled archaeologists for decades. It's long been a mystery why the centre never became a modern town. Now archaeologists have discovered a key piece of evidence. And near Ormseby the first proof of Bronze Age settlement in the east of England has been revealed.



Stonehenge: The Missing Link

Archaeologist Ben Robinson flies over Wiltshire to uncover new discoveries in the stonehenge landscape. Sites found from the air have led to exciting new evidence about Stonehenge. The discoveries help to explain why the monument is where it is, and reveal how long ago it was occupied by people.



March 28-29-30, 2014



Join us for a three-day weekend of archaeology lectures, films, exhibits and demonstrations Our annual American Indian Art Show on Saturday and Sunday will feature Hopi, Navajo, Zuni and other artists who will be demonstrating their art.

Details are available on the Center's website.

The full program schedule will be in the Spring edition of the *Archaeology Quarterly*

Discovering the Past Through Archaeology -- NAGPRA

Human skull discovered near trail head

A human skull was found near a trail head in Camp Verde Tuesday afternoon.

According to the Camp Verde Marshal's Office report, a call came in around 4:30 p.m. The skull was discovered near the cliff dwelling trail head, on the north side of State Route 260 near Verde Lakes Drive.

Upon arrival of the detectives, the skull was located approximately fifteen yards off the main trail head leading to the cliff dwellings. The surrounding area was secured and a search was conducted for any addition remains.

During the initial investigation, a forensic anthropologist was consulted and has determined the skull to be in existence for 50 years or more.

Some of you may have seen this recent newspaper clipping. A member of the Center came across an "unusual looking" cairn of stone along a trail. Upon removing the top stone he discovered a skull and reported it to the Forest Service who in turn reported it to the County and local police agencies. This is a good time to review the laws and requirements when finding Native American remains and associated objects.

Since this was found on Federal land, the Native American Graves Protection and Repatriation Act (NAGPRA) applies. NAGPRA is a law that establishes the ownership of cultural items excavated or discovered on federal or tribal land after November 16, 1990. The act also applies to land transferred by the federal government to the states under the Water Resources Department Act. However, the provisions of the legislation do not apply to private lands. The Act states that Native American remains and associated funerary objects belong to lineal descendants. If lineal descendants cannot be identified, then those remains and objects, along with associated funerary and sacred objects,

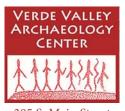
and objects of cultural patrimony belong to the tribe on whose lands the remains were found or the tribe having the closest known relationship to them. The U.S. Forest Service had previously determined that the Hopi Tribe had the closest cultural affiliation to the site where the discovery was made.

For inadvertent discoveries, as in this case, Federal regulations delineate a set of short deadlines for initiating and completing consultation. The repatriation provision applies to remains or objects discovered at any time, even before the effective date of the act, whether or not discovered on tribal or federal land. The act allows archaeological teams a short time for analysis before the remains must be returned. Once it is determined that human remains are American Indian, analysis can occur only through documented consultation (on federal lands) or consent (on tribal lands).

In this case, the Yavapai County forensic anthropologist was brought to the scene. She determined that the skull was Native American based on the age of the skull, its location near an ancient dwelling site, and on the flattening of the back of the skull that was likely caused by the individual being carried in a cradle board as a child. The remains were turned over to Travis Bone, archaeologist for the Red Rock District, who immediately brought it to the Museum of Northern Arizona in Flagstaff for repatriation to the Hopi Tribe. Based on the location and position of the skull, he believes that the site of the find was not part of a prehistoric burial. Instead, he believes that the skull had washed down from its original burial location and that many years ago a local found it and attempted to "do the right thing" at the time and reburied it. The field survey team from the Center was asked to survey the surrounding area, including the nearby wash, to determine if any other remains or associated objects could be found. Any such finds would also be returned to the Hopi Tribe.

It is the policy of the Verde Valley Archaeology Center that we will not accept any human remains or associated burial objects in accordance with State statues and current Guidelines issued by the Arizona State Museum burial Coordinator. The Center will not take any artifact donation that was taken from a human burial or the donor had knowledge that it came from a human burial.





Camp Verde, AZ 86322-7272

Become a member to help protect the ancient cultural heritage of the Verde Valley. Visit us at www.verdevalleyarchaeology.org to join online, download an application, or stop by the Center.

Memberships (except Student) cover all in your household	Student \$10	Supporting \$35	Contributing \$50	Sustaining \$100	Benefactor \$250	Life \$350	Patron \$500
Access to Laboratory Facility	X	X	X	X	×	X	X
15% Gift Shop Discount	X	X	X	X	X	X	X
Archaeology Quarterly newsletter	X	X	X	X	X	X	X
Group Hiking Opportunities	X	X	X	X	X	X	X
Archaeology Fieldwork Opportunities	X	X	×	X	X	X	X
Invitations to Events and Previews	X	×	×	×	X	X	X
Travel Opportunities with Educators		X	X	X	X	X	X
Discounted Specialty Classes		X	X	X	X	X	X
VVAC-logo Aluminum Water Bottle			X	×	X	X	X
Free Admission to 400+ museums				X	X	X	X
Free Tickets To Film Festivals					2	4	4
Archaeology Quarterly Acknowledgement						×	X
No Annual Renewals						X	X
Private Center Tour On Request							X

Thanks For Your Support

The Verde Valley Archaeology Center would like to thank the following individuals and businesses for their generous support received in the past 12 months

Business Members



www.ToursOfJerome.com



www.PocoDiablo.com



verdevalleymedicalcenter.com



Life Members and Gifts of \$350 to \$499

Ken and Bonnie Bigolin Ron & Suzanne Burkey Henry Damon Barbara Lee Flight Rebecca & Frank Fowsky Dennis and Kelley Gilpin Roger & Mary Kearney Carole Mackler Kristine Moehring Joseph & Lynne Montedonico Ann & Jack Urick Bruce and Donna Vegter George and Pat Witteman

Patron Members and Gifts of at least \$500

Todd & Heidi Bostwick Denise Kelly & Gary Ferguson Louise Fitzgerald Richard Henderson William Kern C. A. McDonald Family Sharon & Norm Olson S.E. Rulapaugh Jerry & Janet Walters **Robert Whiting** Marshall and Jane Whitmire

Gifts of at least \$1,000

James & Diane Graceffa Robert Jonas Joella Jean Mahoney Tom & Janet Taylor Kathy & Peter Wege Ken & Nancy Zoll



Employer Matching Grant - The Center has received two matching member donations from the Macy's Foundation. We also have a pending matching retiree contribution from Arizona Public Service. Does your current or past employer have a matching contribution program. It is an easy way to increase the impact of your donation.