



Archeology Program

National Park Service
U.S. Department of the Interior



March 2018 Archeology E-Gram

NPS NEWS

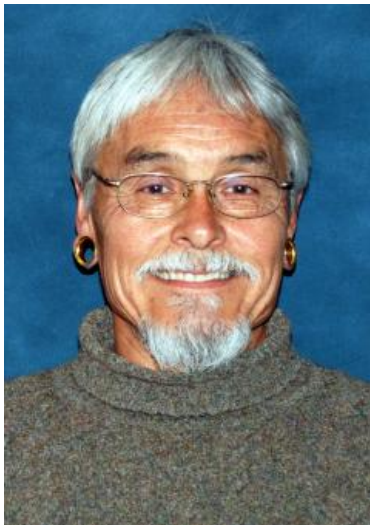
Zinke Cancels Chaco Canyon Lease Sale

Interior Secretary Zinke has canceled an oil and gas lease sale near Chaco Canyon in northern New Mexico until the agency can further review the impact on cultural artifacts in the area. The sale was set for March 8, 2018. The BLM will hold off on the sale of about 25 parcels on 4,434 acres within Rio Arriba, Sandoval, and San Juan Counties in northwestern New Mexico.

The BLM received 120 protests opposing the March sale. Tribal officials, environmentalists and others say the lease sites in question are too close to Chaco Culture NHP and other sites they consider culturally significant. Senator Tom Udall pushed for the DOI 2016 decision to conduct a joint review of the resource management of public and tribal lands in northwestern New Mexico, including the impact of potential oil and gas leasing near the Chaco Culture NHP. The BLM has been conducting required consultation on all of the proposed parcels with the affected parties under the NHPA. Those parties include state and tribal governments and others. The BLM will complete an extensive cultural report, which will be used to support the agency's findings of how oil and gas leasing would affect the proposed area. In recent years, attempts to convince the federal government to preserve the Chaco region as an area of critical environmental concern have been unsuccessful. In January, the All Pueblo Council of Governors representing 20 Native American tribes formally protested the March 8 lease sale.

By Michael Coleman / Journal Washington Bureau

NPS Archeologist to be Next Archaeology Society President



NPS Cultural Resource staff and Choctaw tribal member Joe Watkins has been elected as the Society for American Archaeology's (SAA) next president. Watkins is currently the NPS Chief of Tribal Relations and American Cultures, the Supervisory Cultural Anthropologist, and American Indian Liaison Officer. Despite his busy schedule, he agreed to give the Archeology E-Gram an interview.

Watkins is the second Native American ever elected SAA president, and the first Federal employee to hold this position in nearly 50 years. Arthur Parker (1935-1936), was the first Native American president, as well as the organization's very first president. The last Federal employee president, Robert Lister (1970-1971), joined the NPS after serving. The role of the Society's president is to advocate for archeology to Congress. As a Federal employee, this would be a violation of the Hatch Act. Watkins plans to retire before taking up SAA responsibilities, to avoid any unpleasant tweets!

Watkins was born in the Talihina Indian Hospital and lived on his family's allotment for the first six years of his life. About the early 1950s in southeastern Oklahoma, he said, "It was worse to be Indian than to be Black." He remembers waiting outside stores until white patrons had exited and it was safe to go in. After the family moved to Oklahoma City, he spent summers with his grandmother, who still lived in southeastern Oklahoma. Although he spoke no Choctaw and she no English, she taught him much about

traditional lifeways. When Watkins found an Archaic projectile point, she told him that it had been left by the people who were there before them.

After high school in Oklahoma City, Watkins went to college at the University of Oklahoma; it was inexpensive and close. His family supported education, and he was influenced by a high school science teacher named Don Fleet. When Watkins registered for classes, though, he took archeology and anthropology classes, rather than the geology that Fleet had studied. He started his college education in 1969, the year that Vine Deloria published *Custer Died for Your Sins* and the American Indian Movement took over archeological sites in Minnesota to protest research.

In this environment, several archeology professors wondered if Watkins could be sufficiently objective to be a good archeologist, and his Native friends wondered why he wanted to be an archeologist at all. When Watkins was offered a chance to escape these social pressures, albeit temporarily, and work with Francois Bordes in France, he gladly took it. With this European experience, Watkins applied to Southern Methodist University to work with Garth Sampson in sub-Saharan Africa.

Watkins was accepted to SMU, but when Sampson became Chair of the Department and had to postpone fieldwork, he worked with Bruce Bradley on experimental archeology issues. Watson said that graduate school was a shock. Undergraduates were expected to be generalists, and know a little about everything, which he liked; graduate students were expected to know a lot about a specialized topic. He was also uncomfortable with academic culture, in which sources of information were challenged and interrogated. Experimental archeology, though, drew him closer to Native America as a geographical focus and to Native American issues.

Watkins finished his MA in 1977, and immediately jumped into employment, some Federal, some State, some CRM, which occupied him for the next 17 years. One of his most memorable experiences was to be the DOI representative at the American Indian Religious Freedom Act (AIRFA) hearings. Here he heard language about ethical treatment of Native American human remains and cemeteries that, while recommended in AIRFA, would later be required in the Native American Graves Protection and Repatriation Act (NAGPRA).

When his first child was born, Watkins began thinking about his Ph.D. He said that he knew it was then or never, because soon he would be too occupied with being a father to take on a big research project. The data from his original, unfinished dissertation research – mapping and collecting artifacts from a “site” he created by excavating and living in a pit house for 9 months – was long gone, victim of many moves between houses. He needed a new project, and wanted to explore ethics. He administered a questionnaire about archeological practices at archeological conferences and through the offices of the state historic preservation officers. Watkins’ dissertation addressed issues framed by the recent passage of NAGPRA and informed by AIRFA.

Since earning his PhD, Watkins has produced a constant stream of essays, comments, notes, memorials, chapters, and other publications – to date, well over 100. His topics are narrow, but deep. Watkins’ focus is archeological ethics, informed by his perspective as a Native American. His writing nags at the conscience of American archeology, as respect for the concerns and wishes of descendent communities articulates with all archeological fieldwork. These concerns are most clearly spelled out in his writings on indigenous archeology.

He never felt that he “needed” to have a Ph.D., but things changed dramatically after Watkins was awarded his degree. He was invited to speak at conferences, contribute to publications, and serve on

panels and committees. He eventually left his Federal position and taught at the University of New Mexico and University of Oklahoma for a decade before joining the NPS in 2013.

One of the motivations for accepting NPS employment has been a desire to be liaison to help the NPS understand how staff and actions might be perceived by different communities. During his time at NPS, Watkins has advised on reorganization to keep cultural resource programs relevant; filled positions that had been long vacant; and helped to re-invigorate relationships between parks and local, descendant, and Native communities. He is pleased to have the “Gathering” regulations finished that allow Native communities to establish agreements with parks to harvest traditionally important materials from parklands, a project initiated by former American Indian Liaison Officer Pat Parker.

Watkins encourages his NPS archeological colleagues to reach out to tribal communities associated with their parks, and to make their colleagues aware that everyone in a park contributes to relationships with tribal people. He recommends that everyone read *Culture Matters: The Peace Corps Cross-Cultural Workbook* to better understand the impact their communication style has on others. He also urges his colleagues to read – not just archeology, but ethnographies, histories, community studies – to keep intellectual curiosity alive.

Watkins takes on presidency of the SAA during a challenging time. He points out, though, that the organization is financially stable, and positioned and able to take on other important tasks. He lists public education and outreach, student involvement in committee work, and archeological ethics as vital issues. His colleagues are sorry to see him retire, but are pleased that Watkins will still be critically involved in American archeology.

This interview, and others that are profiled in the Archeology E-gram, was recorded by the NPS History Program and archived at the Harpers Ferry Center.

By Karen Mudar

Updates to the NPS Archeology Guide: Archeology Outreach Module

The NPS Archeology Guide: Archeology Outreach module has been updated. New sections include information about citizen science and service learning; volunteers, youth, and students; and templates for handouts.

Find the module at <https://www.nps.gov/archeology/npsGuide/outreach/index.htm> .

Contact: Teresa Moyer at teresa_moyer@nps.gov .

Western National Parks Foundation Funds Archeology at Casa Grande Ruins National Monument

Western National Parks Foundation has awarded Casa Grande Ruins National Monument funding for a project to conserve and clean the interior walls of the Great House (a 14th century Hohokam multi-story earthen structure that is the centerpiece of the park), followed by RTI (reflectance transformation imaging) photography.

In RTI photography, the photographer takes multiple digital photographs of a subject from a stationary camera position and applies light from different, but known directions. The images are then “knit” together in an RTI Viewer program. The final image is dynamic, and the user can move a light source around to create a raking light effect on areas of interest. This is especially useful in archeology when one needs to look at objects with low-relief etching or carving, as is the case with plaster-glyphs (like those found inside the Great House), petroglyphs, historic graffiti, and certain artifacts.

For more information about RTI, go to <http://culturalheritageimaging.org/Technologies/RTI/>

By Katherine Shaum

Archeology Rack Cards Now Available for Download

NPS archeology rack cards are available to help park staffs and visitors know appropriate behaviors and protocols. *When Visitors Hand You Artifacts* is for park staff when a visitor brings in an artifact. *What If I Find an Artifact?* is for the general public, to guide appropriate behavior if they come across an artifact during a visit to a park unit.

The rack cards are available for download in .pdf and .indd formats at <https://www.nps.gov/archeology/npsGuide/outreach/templates.htm> .

Contact: Teresa Moyer at teresa_moyer@nps.gov .

FEDERAL NEWS

Stolen Artifacts Recovered by NPS Special Agents Repatriated to Belize

Cultural artifacts smuggled out of Belize and recovered by NPS Special Agents of the Investigative Services Branch (ISB) have been repatriated to their country of origin. The artifacts were returned at a recent ceremony when the United States and Belize signed a cultural property agreement, solidifying their collaboration to combat looting and trafficking of cultural objects.

During a cultural property investigation conducted by ISB Special Agents, investigators discovered that a US citizen from California visited a number of archeological sites in Belize in 2000. Searching for artifacts, the man traveled to inland sites as well as on a low coral island, or caye, in southern Belize. On the caye, he found an archeological site containing human remains, pottery fragments, at least one jade bead, and flaked stone material. He took many of the artifacts back to California with him without the permission of Belize, and did not declare them upon re-entry into the US.

The man made two subsequent trips to Belize as late as 2007 specifically to revisit the caye and collect any artifacts he could find. He smuggled all of the cultural property he found on his three trips through the Belize City airport.

ISB Special Agents were able to recover only part of the entire collection of stolen artifacts. These recovered items were returned to Belize through the US Embassy and the US Department of State. Among the chert tools and debitage was a piece of special importance that the Belize Institute of Archeology was particularly pleased to receive.

With the signing of the *Memorandum of Understanding Concerning the Imposition of Import Restrictions on Categories of Archeological Material of Belize*, the US and Belize set goals to protect cultural heritage and reduce the incentive to pillage. They are also working to increase lawful access to cultural objects and awareness of world heritage by encouraging interchange of materials for scientific, cultural, and educational purposes.



Representatives of the US and Belize sign an agreement to combat looting and trafficking of cultural objects. Inset: 11 stolen artifacts recovered and returned by ISB Special Agents. US Department of State photo Inset: NPS photo by the Investigative Services Branch.

World War II Carrier “Lady Lex” Found Two Miles Under Sea

Paul Allen, the co-founder of Microsoft, is a dedicated amateur underwater archeologist, specifically interested in finding ships sunk during World War II. Last August, Allen's research vessel Petrel located the USS Lexington —the aircraft carrier that, along with the USS Yorktown, fought the first-ever carrier duel with the Imperial Japanese Navy in the Battle of the Coral Sea.

The Petrel located the Lexington's wreck with a Hydroid Remus 6000 drone submersible, an autonomous underwater vehicle equipped for searching large areas of seabed at depths up to 6,000 meters (3.7 miles). With its side-scan sonar, the Remus 6000 is capable of mapping over 100 square kilometers per deployment.

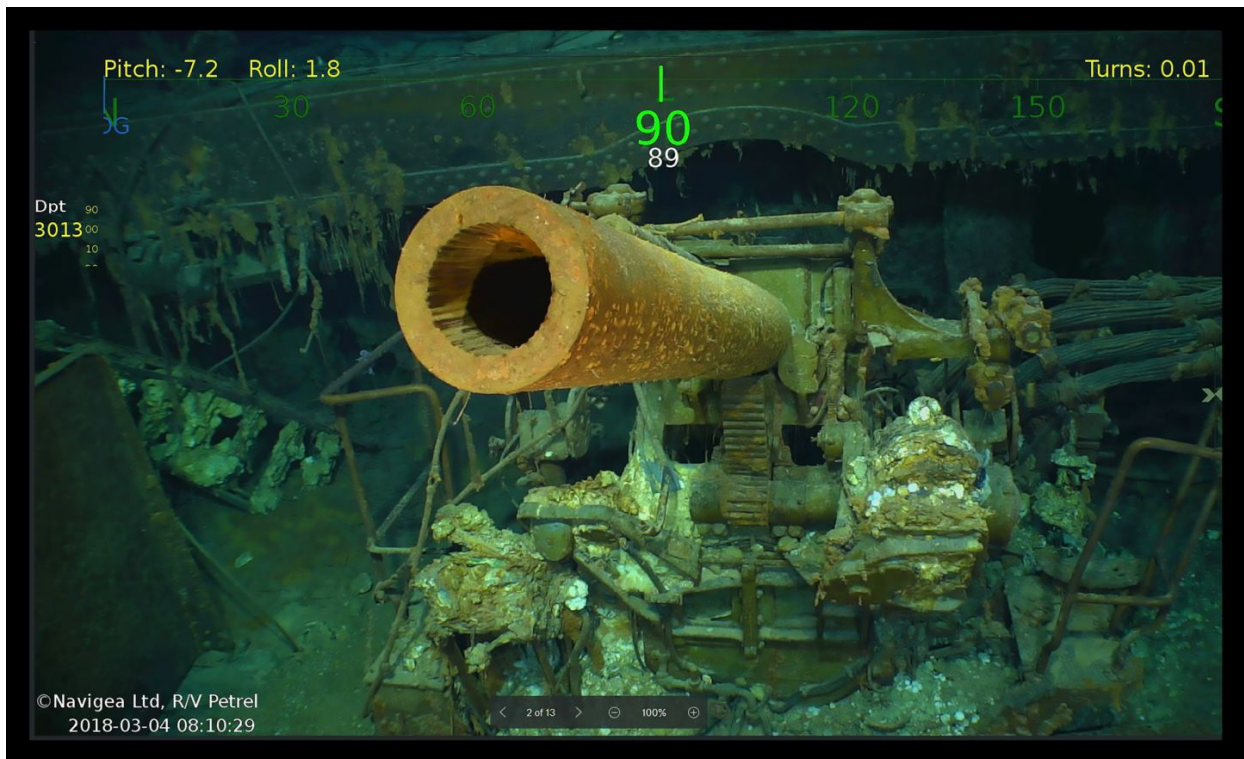
The damage dealt by the Lexington's and Yorktown's aircraft to the Japanese carrier Shōkaku, the decimation of the air wing of the carrier Zuikaku, and the sinking of the light carrier Shōhō changed the direction of the war, weakening Japan's naval air power just before the Battle of Midway. The battle preempted a Japanese invasion of Port Moresby, Papua New Guinea, which would have allowed Japan to attack eastern Australia.

Bombed and torpedoed multiple times, the Lexington was still afloat. But when fires caused by the bombing reached the Lexington's aircraft fuel stores and burned out of control, the ship had to be abandoned, and the destroyer USS Phelps was ordered to scuttle the ship with torpedoes. It took five

torpedoes to do the job. The crew abandoned ship, but the Lexington went down with 35 aircraft aboard, settling to the bottom of the ocean two miles beneath the surface; 216 crewmembers died during the fight.

Images show the Lexington and some of its aircraft in amazingly good condition after 76 years (or at least good condition for a ship that was deliberately sunk with torpedoes). Grumman F4F Wildcat fighters bearing the "Felix the Cat" logo of the VF-3 Navy fighter squadron (now carried on by the Navy's VF-31) were visible, as were Douglas TBD Devastator dive bombers.

By Sean Gallagher, ARS Technica



One of USS *Lexington's* 5-inch gun mounts. Nearly 76 years after it sank, the rifling is still visible in the barrel.

GRANTS AND TRAINING

Updates to Interpreting Archeology: A Shared Competency for Archeologists and Interpreters

The NPS Archeology Program announces several updates to the four part *Interpreting Archeology* series. These updates incorporate current information, techniques, and examples. *Archeology for Interpreters: A Guide to Knowledge of the Resource* includes updated links to training and tools for interpreters. *Interpretation for Archeologists: A Guide to Increasing Knowledge, Skills, and Abilities* has been substantially updated to incorporate up-to-date NPS interpretive methods, links, and approaches. The guide aims to pull back the curtain on what interpreters do, how they do it, and why interpretation is part of archeologists' professional responsibilities. *Study Tour of Archeological Interpretation* has been updated with new examples and information. *Assessment of Archeological Interpretation* includes a streamlined framework for quickly assessing if an interpretive product hits its aims and goals.

New NPS employees can join a discussion in the Interpreting Archeology forum in The Commons (<https://mylearning.nps.gov/groups/interpreting-archeology/>), part of the NPS Common Learning Portal. There is a discussion area for each of the four guides, as well as opportunities to share ideas and ask questions.

All four guides can be accessed from the Archeology Program's Distance Learning page (<https://www.nps.gov/archeology/tools/distlearn.htm>). While the guides are available online for perusal at any time, register in DOI Learn to receive credit on your transcript.

For more information, contact Teresa Moyer at teresa_moyer@nps.gov or ping @tsmoyer on The Commons.

Help Identify Archeology Training Needs!

The NPS Archeology Program is collecting input from NPS employees about training in archeology. Head over to the Training Needs in Archeology forum, part of the Commons in the NPS Common Learning Portal (<https://mylearning.nps.gov/groups/training-needs-in-archeology/>). (Note that the Portal is currently open to NPS employees only.) Insert your wish list of archeology training for yourself, your staff, and other NPS employees. The list will be used to identify service-wide priorities for training and the development of guidance and professional assistance.

Contact: Teresa Moyer at teresa_moyer@nps.gov or ping @tsmoyer in the Commons.

SLIGHTLY OFF TOPIC: Printing the Past: 3D Artifact Replicas Aid in Research, Education

From article by Bernard K. Means, Director, Virtual Curation Laboratory, Virginia Commonwealth University

If you own a 3D printer, or can access one, then you can 3D print a replica of George Washington's false teeth, a key to Edgar Allen Poe's trunk that was reportedly found on his body, and even molars from mastodons. For those learning about or teaching kids about slavery in the U.S., artifacts associated with enslaved laborers from George Washington's Mount Vernon, George Mason's Gunston Hall, James Madison's Montpelier, and Thomas Jefferson's Poplar Forest are all ready to be downloaded for free and 3D printed. All of these objects and many more were 3D scanned by the Virtual Curation Laboratory (VCL) at Virginia Commonwealth University. The British Museum has made a 3D digital model of the Rosetta Stone downloadable, as well as an expanding number of treasures. The Smithsonian Institution in Washington, D.C. is another major gatekeeper of our world's past and they are digitizing select items.

Capturing the past in 3D

A major focus for museums and others who study and preserve the past is to create accurate 3D digital models from real objects. This minimizes handling of the real objects, makes it possible for researchers to study them without having to travel all to visit a museum or research facility, and, of course, allows museum visitors or the general public to handle a replica just one step removed from the actual artifact, fossil, or historical relic.

There are a number of ways to create a 3D digital model of an object. The VCL relies primarily on the NextEngine Desktop 3D laser scanner—this 3D scanner is portable and can be easily transported across the globe. Another type of 3D scanner is the lower resolution, but moderately priced Structure Scanner, which can be mounted on any Apple iOS device and provide real-time 3D scanning. This scanner is very portable and can be easily tossed into a small book bag or purse.

One accessible way of capturing the past in 3D is through photogrammetry, which uses software to stitch together dozens of hundreds of photographs to create a 3D model. Scan the World is leading a global effort to scan the world's cultural heritage, and make it accessible to all through free 3D models that are guaranteed to be printable on any 3D printer.

Why print the past?

There are a number of reasons why one might want to print the past. 3D printed replicas can be integral to efforts to reach out to the public, can be important educational tools, and as touchable components of exhibits. 3D printed replicas can be repeatedly handled without damaging the real things, and help promote awareness of the past without endangering the actual representatives of the past. If an object's replica is lost, damaged, or stolen, it can be readily and inexpensively replaced.

3D printing can enhance educational efforts. There are many well illustrated guidebooks that help with these efforts, but these do not compare to a student's ability to learn by holding a 3D printed replica of a stone tool or bone that has the shape and dimensions of the actual object. This is particularly useful for schools or small institutions with limited space and even more limited budgets. These types of collections are themselves useful for making identifications in field or laboratory settings. Unlike real type specimens, 3D printed replicas can be easily and safely carried into the field.

The VCL is increasingly working with museums through the medium of 3D printing. Right now, the VCL is using 3D scanning and 3D printing to help Virginia Museum of Natural History (VMNH) with an exhibition of an Ice Age giant ground sloth whose skeleton is incomplete. The VCL has 3D scanned right and left elements, digitally mirrored them, and then printed the missing "left" and "right" bones.

A powerful expression of how 3D printing can transform access to the past is evident in the VCL's partnership with the Virginia Historical Society. They want to make their marque exhibit, "The Story of Virginia", more accessible to the global audience they reach through distance learning via 3D digital models posted online. They are especially interested in making the exhibit more meaningful to blind or visually impaired visitors by creating touchable versions of historical items locked safely in glass cases. People who are mobility challenged can also appreciate the museum's collections even if they are unable to visit the museum in person.

By making 3D printable digital models of artifacts, fossils, or historical items available freely online, the Virginia Historical Society and like-minded institutions make access to the past more democratic. The revolution that is 3D printing is revitalizing our ability to explore the ancient history of our planet from the comfort of our own homes.

Archeology E-Gram, distributed via e-mail on a regular basis, includes announcements about news, new publications, training opportunities, national and regional meetings, and other important goings-on related to public archeology in the NPS and other public agencies. Recipients are encouraged to forward *Archeology E-Grams* to colleagues and relevant mailing lists. The *Archeology E-Gram* is available on the *News and Links* page www.nps.gov/archeology/public/news.htm on the NPS Archeology Program website.

Contact: Karen Mudar at dca@nps.gov to contribute news items and to subscribe.