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Reclaiming Hanford



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Beyond the Classroom

Other Audiences Await Our Attention

FRANCIS P. McMANAMON

ARCHEOLOGISTS HAVE MANY audiences to reach in order to explain their work—their methods, their interpretations, and the importance of protecting and preserving the archeological record. Some of these audiences are already afforded special attention, most notably students and teachers in elementary and secondary schools. Committees of the Archaeological Institute of America, the Society for American Archaeology, and the Society for Historical Archaeology, along with many public agencies, have a substantial set of accomplishments in this education arena. There are, however, other important audiences that deserve attention.

The plenary session at the recent Society for American Archaeology annual meeting emphasized the importance of reaching out to the general public. The session, held on Saturday night near the culmination of the meeting, focused on the need to provide the general public with a variety of information about American archeology. Kate Stevenson of the National Park Service and David Hurst Thomas of the American Museum of Natural History told the audience that one of the best ways to make archeology relevant is to encourage Americans to visit and experience archeological sites. Units of the national park system provide opportunities for the public to learn about some of the most visually striking and important sites in the country. Thomas has recently published *Exploring Ancient Native America*, an informative travel guide that encourages this kind of archeological touring, as does the extensive national guidebook *America's Ancient Treasures* by Franklin and Mary Folsom.

BOTH BOOKS EMPHASIZE interpreting physically tangible resources, which communicate powerfully by their mere presence. The Mesa Verde cliff dwellings, the Nauset embayment at Cape Cod, and the intricate stonework of Chaco Canyon all tell their own stories. The same goes for the thousands of other archeological sites across the United States, most of them not national but local in importance.

At the SAA session, Peter Young, editor of *Archaeology* magazine, and Brian Fagan, well-known popularizer of the discipline, emphasized this point. Archeology cannot hope to compete with the sensationalized fare seen daily in the national media. Only one or two archeological stories annually will

attain blockbuster status, such as the recent discovery of the tomb of Ramses' sons in the Valley of the Kings by Kent Weeks. The local level, however, is another matter.

Local archeology stories are a "hometown draw" with residents—as Fagan has pointed out elsewhere—a fact not lost on local reporters and broadcasters, who are perpetually hungry for news. Archeologists need to focus attention on these local professionals to reach the general public effectively.

ANOTHER MEANS OF REACHING THE PUBLIC, a means that will become more and more important as an increasing number of Americans and the rest of the world connect to the Internet, are the bulletin boards, lists, and home pages springing up in the electronic dimension. The National Park Service premiered its archeology home page at the SAA meeting, which offers electronic access to the popular *Participate in Archeology* brochure, the National Archeological Database, and other archeologically related sites—both outside and inside the Park Service [see "Links to the Past," page 5]. (Readers interested in exploring these sites can check the WWW addresses <http://www.cr.nps.gov> ["NPS Links to the Past"] or <http://www.cr.nps.gov/archo.html> ["NPS Archeology"].)

Archeologists who want to pursue this kind of outreach will do well to invest in a captivating presentation of their message. As in other media, there is stiff competition for audience attention. A visually attractive, interesting, and informative presentation is essential. It will not do to merely present hard copy of text and illustrations in electronic form, although this may well suffice to reach audiences interested in technical and scientific information.

Electronic media present unprecedented opportunities and challenges for the profession. In the short time that the National Archeological Database has been on line, the number of logins has grown to over 2,000 a month. Expectations are that logins will continue to grow exponentially, with a potential WorldWide Web audience in the millions. These numbers should not be ignored by those with the means of reaching them.

Francis P. McManamon is Departmental Consulting Archeologist, Department of the Interior, and Chief, Archeological Assistance, National Park Service.

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Cover: The semi-arid hills of Hanford, WA; inset, l to r: housing WW II workers; constructing waste tanks, ca. 1944; Wanapum elders with DOE officials. U.S. DOE



U.S. DOE

Powerhouse under construction, Hanford, WA, 1944. As cleanup continues at the site where plutonium was made for the atomic bomb dropped on Nagasaki, Japan, managers and archeologists look for better ways to protect the cultural record. Page 14.

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What You Don't Know *Can* Hurt You

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Every excavation is a gamble, but in more ways than you might expect. True, the remains of a world gone by may lie beneath your feet. But somewhere between the first shovelful and the final lab work, a world of misery could await as well. JOSEPH FLANAGAN



Reclaiming Hanford

Thanks largely to its role in making nuclear weapons, Hanford, Washington—which resides on the only stretch of the Columbia River not submerged by hydroelectric dams—has been protected by government security for the last 50 years. Why the significance of its archeological heritage goes “beyond science.”

DARBY C. STAPP, JOY K. WOODRUFF,
AND THOMAS E. MARCEAU



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Closeup on Jamestown Island

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Sea levels rose and fell, generations of Native Americans lived and died, and an asteroid may have crashed into the Chesapeake. And that was all before the English arrived in 1607. Scientists pool their expertise and resources to give us the big picture—and the closeup—of the island in context.

PHOTOGRAPHS BY TONY BELCASTRO



Making Magic with Educational Partnerships

By chance, circumstances presented Fort Frederica National Monument with what the great southern philosopher Pogo would call “an insurmountable opportunity.” How 200 4th and 5th graders uncovered an archeological cache in the soil of the former English fort—and got a schooling in the process.

RAY MORRIS

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News, Views, and Recently Noted

New International Convention Complements UNESCO Accord

In Rome on June 24, following a diplomatic conference attended by representatives of over 70 countries and international organizations, a new convention was signed providing for the return of stolen or illegally exported cultural objects. Under the provisions of the convention, a legitimate owner can seek the return of a stolen cultural object through the court system of the country to which it has been taken, provided both countries have implemented the convention. Similar provisions apply to illegally exported cultural objects. Congress must ratify the agreement before it becomes U.S. policy.

The convention reflects the concern of thousands worldwide fighting to protect, preserve, and interpret cultural objects and the archeological sites, collections, and museums that contain them. One of the scourges of their efforts is the illicit trade in cultural objects and the irreparable damage frequently caused by it, both to the objects themselves and to the heritage of nations, tribes, and indigenous communities. The convention's preamble reflects the resolve of conference attendees to deal with the worldwide pillage.

Honoring Career Achievers

Two Park Service employees and one retiree were awarded for their career achievements at the Society for American Archaeology's annual meeting in Minneapolis this May. The Society of Professional Archeologists gave Francis R. McManamon its special achievement award, while Calvin R. Cummings and Lawrence E. Aten each received cultural resources management awards from the SAA.

In honoring McManamon, SOPA recognized the success of the NPS archeological assistance program—headquartered in Washington, D.C.—where he is chief as well as Interior's departmental consulting archeologist. McManamon's leadership, said SOPA, has led to better communication among the diverse elements of the discipline as well as improved outreach to the general public. Working with museums and universities, his program has enhanced professional training, encouraging preservation initiatives at other federal agencies as well as partnerships with state governments and private groups. McManamon was also recognized for his contributions to implementing the Native American Graves Protection and Repatriation Act and fostering the development of the National Archeological Database.

Cummings, senior archeologist for the anthropology division—also based in the nation's capitol—was honored for “innovative and long range improvements” that have strengthened the ties between archeology and other disciplines. Notably, he was cited for his central role in creating the multidisciplinary Southwest Cultural Resources Center in Sante Fe. Cummings was recognized as well for being instrumental in founding and fostering the Submerged Cultural Resources Unit, also based in that city.

Aten, retired chief of the Washington, D.C., interagency resources division, was commended for his 25 years of contributions to the growth of the preservation field. As supervisor of the National Register of Historic Places, he worked to make the registration process more inclusive and accessible—to the public as well as professionals. The Register was automated under his leadership.

Throughout his NPS career, Aten advocated linking archeological and historic preservation. He was among the first in the field to employ geographic information systems.

The final wording is a compromise between delegates from countries frequently the source of objects and coun-

tries where they are often traded and purchased. “Source” countries succeeded in having the text recog-

nize “illegally excavated” cultural objects as stolen and in establishing long statutes of limitations. Additionally, there will be no time limit on prosecuting those who steal from or illegally excavate “an identified monument or archaeological site [or] public collection.” Source countries also put forth a detailed “due diligence” standard—incorporated into the convention—that purchasers must adhere to if they hope to be considered bona fide.

“Market” countries succeeded in securing a specific definition of “cultural object” rather than a more general one. They argued successfully for the right of a bona fide purchaser to compensation if required to return an object. They also lobbied successfully for non-retroactivity, meaning that the convention applies only to actions after its adoption and implementation.

The new agreement establishes a potentially useful complement to the 1970 UNESCO convention. It offers special protection and additional means of seeking legitimate return to all countries, whether “market,” “source,” or both—such as Australia, Canada, France, Italy, and the United States, whose negotiators were key to the final agreement.

The proof of the conven-

LINKS

to the past

NO MATTER WHERE YOU ARE, anywhere in the world, now all it takes is a few keystrokes to tap into America's rich archeological heritage. Browse landmarks, call up maps of where fluted points have been found, or learn how to volunteer for fieldwork in your area—all without leaving your seat. Thanks to "Links to the Past," the new Park Service site for cultural programs on the WorldWide Web, all you have to do is key the words "<http://www.cr.nps.gov>" at one of many web gateways (such as NetScape or Mosaic) and you're off.

The concept and design for "Links"—part of a larger Park Service module that just made America Online's list of "hot new web sites"—are largely the work of three staffers from the archeological assistance division. The "Links" home page offers an array of entry points into the nation's past, with clickable icons representing archeology, history, and structures and landscapes, among others.

MOST OF THE WEB PATHS are cross-linked, so you can explore archeology by entering any of the portals. Clicking "History"—followed by "History in the Parks," "American Battlefield Protection Program," and "Shenandoah Valley Civil War Sites Report"—calls up a description of the valley's Civil War history and archeology.

"History" also permits passage to "Landscapes," which branches to "Preservation Programs," which, in turn, provides access to "Archeology" or "Museum Collections," which features 100 archeological and historical objects that can be viewed on screen, from John Wilkes Booth's derringer to Zuni pottery.

Or, go directly to "Archeology" from the web gate by keying in "<http://www.cr.nps.gov/archeol.html>." Here you'll find a web-adapted version of the popular *Participate in Archeology* brochure (seen by almost a quarter million people to date). Designed for the public as a user-friendly introduction to archeology, *Participate* explains what archeologists do, lists

books, journals, and films on the subject, and provides a wealth of information for those who wish to take part in an excavation.

Then click "Archeological Assistance Program" for a description of how the program provides national guidance for federal archeology, and works in cooperation with other agencies to achieve its objectives. An icon marked "NADB" acts as a gate to the National Archeological Database, a com-

munications network citing over 100,000 reports of archeological investigations. NADB offers mapping capabilities to display data at state and county levels—meaning, for example, that you can call up color vegetation maps revealing a range of archeological information. A recent module in the database is the latest guidance on the Native American Graves Protection and Repatriation Act.

NADB also provides access to other

archeology-related web sites outside the Park Service. By clicking "Internet Resources for Heritage Conservation, Historic Preservation, and Archeology," you can tap into databases offered by ICOMOS, the University of Connecticut's ArchNet, Conservation Online, Art Source, and others.

THE ENTHUSIASM that has greeted the idea of archeology online is evident in the fact that a mere two weeks after the dramatic discovery of cave paintings in Lascaux, France, color images of them could be called up on the Internet. With "Links to the Past," the Park Service is pushing the technology for maximum effect as well. Plans are in the works to tie "Links" to all the national parks that feature archeology.

For more information contact S. Terry Childs, National Park Service, Archeological Assistance Division, P.O. Box 37127, Washington, D.C. 20013-7127, (202) 343-1141, fax (202) 523-1547.



tion's usefulness will come only after countries have implemented it. In the United States, this requires congressional action. Given the diverse opinions aired during the conference, this will likely spur vigorous debate.

The final text was drafted after nearly a decade of work under the auspices of the International Institute for the Unification of Private Law (Unidroit) and with the full support and cooperation of UNESCO. Archeologists from the National Park Service served on the U.S. delegation and participated in developing its position.

Setting the Records Straight

It's been said that there is more science being written about today than at any time in the past 100 years, with the sheer volume of scientific information fast outstripping the ability to manage it. In anthropology, scientific records are in many cases scattered, difficult to find, or simply unaccounted for.

Recent efforts, however, may change all that. The Council for the Preservation of Anthropological Records—an organization sponsored by major U.S. anthropological organizations in cooperation with the Society for American Archivists, the American Library Association, and government agencies such as the Park Service—has been working on a national guide that will centralize how records are described and documented. The goal: to make anthropological records almost universally

available.

At a March workshop in Tempe, Arizona, council members developed a discipline-wide set of standards, including information categories broadly useful across the discipline. Working together, archivists, librarians, electronic data specialists, curators, and anthropologists proposed a pilot program to test the standards and categories, which has been submitted for funding to the NPS National Center for Preservation Training and Technology at Northwestern State University of Louisiana. If the center funds the pilot, Arizona University will act as lead organization representing the council, with cooperation from the Center for Advanced Spatial Technology at the University of Arkansas and the National Archeological Database. Mary Elizabeth Ruwell, former director of the National Anthropological Archives, will act as consultant, along with a panel drawn from universities, museums, archives, and federal agencies.

A second workshop held in Reno, Nevada, in mid-April focused on how to educate record holders and the archival community on understanding and working with anthropological material.

Both workshops were funded by the Wenner-Gren Foundation.

For more information on the project, contact Michael Barton (michael.barton@asu.edu) or Peter McCartney (peter.mccartney@asu.edu), both at Arizona University. For information on the council, contact Don Fowler (hp@scs.unr.edu) or Nancy Parezo (parezo@ccit.arizona.edu).

Girding for What's in Store

When the Illinois River crested at 437 feet in May, it was just one flood of many that the historic 93-year-old Kamp Store has endured. When the river rises, it isn't just an old building at risk, though. The Kampsville, Illinois, store also serves as the Center for American Archeology's visitor facility.

When the river rose to 442 feet in the spring of 1993, the store was encircled by rising water, which eventually found its way into the first floor. This spring, however, CAA staffers were ready.

Anticipating the inevitable, they had specially constructed all the exhibits to be broken down and removed in a hurry. The visitor center was fully evacuated in one day.

Besides Kamp Store, five other buildings were cleared out, including three labs. Special kudos go to visiting 7th graders from the Forest Ridge School of Schererville, Indiana, who helped remove items from the center.

Despite rising water and a week of heavy rain, staffers were able to continue the simulated excavations, lectures, and demonstrations the CAA provides for visiting students.

At this writing the waters have receded, and the visitor center is expected to reopen soon.

For more information, contact the Center for American Archeology, Kampsville Archeological Center, P.O. Box 366, Kampsville, IL 62053, (618) 653-4316, fax (618) 653-4232.

Laws and Regs in Electronic Form

Thanks to the Bureau of Reclamation, now virtually all cultural resources laws and regulations are available in electronic format (specifically in WordPerfect for IBM PC). The package is available free of charge. Send two formatted discs and a self-addressed mailer to Bureau of Reclamation, P.O. Box 25007, Attn. D5300, Denver, CO 80225-0007.

For more information, call Ed Friedman at (303) 236-1061, x239.

Park Service Launches Hopewell Newsletter

Interest in the Hopewell culture has grown to the point that there is now a newsletter on the subject, *Hopewell Archeology: The Newsletter of Hopewell Archeology in the Ohio River Valley*. Published twice a year, it's a joint effort of the NPS Midwest Archeological Center and Hopewell Culture National Historical Park. The newsletter intends to provide an informal forum for exchanging news about research, data, interpretation, public education, and events.

For more information, contact Bret J. Ruby, Hopewell Culture National Historical Park, 16062, State Route 104, Chillicothe, OH 45601-8694, (614) 774-1126, fax (614) 774-1140, or Mark Lynott, Midwest Archeological Center, Federal Building, Room 474, 100 Centennial Mall North, Lincoln, NE, 68508, (402) 437-5392, fax (402) 437-5098.

Protecting the Nation's Archeological Heritage

Navy Presents Policy on Submerged Aircraft

Throughout its 200-year history, the U.S. Navy has inspired countless books and films. But the ocean bottom tells the story of the service with an authority all its own. The wrecks beneath the world's oceans document the evolution of Navy seapower from wooden coastal raiders to the nuclear-fueled sub. During recent ceremonies honoring those who have acted to protect this heritage, the Naval Historical Center's William Dudley took the opportunity to formally present Navy policy on submerged historic ships and aircraft.

There are 15 federal laws and regulations pertaining to U.S. Navy wrecks. Based on the property clause of the U.S. Constitution, international maritime law, and the Law of the Sea Convention, the Navy retains custody of its wrecks regardless of how old they are or where they lie. Only by congressional action can they be declared abandoned.

The Naval Historical Center is taking an increasingly active role in providing federal oversight to protect U.S. Navy wrecks and, along with state historic preserva-

WALDBAUER AWARDED FOR ADVANCING PARK SERVICE MISSION

Richard C. Waldhauer, protection coordinator for the archeological assistance division, was honored recently for his outstanding contributions to



advancing the Park Service mission. Director Roger Kennedy and Assistant Secretary of the Interior George Frampton presented Waldhauer with a National Park Foundation Partnership Leadership Award during a May 23 ceremony at the U.S. House of Representatives.

Working with the Department of Justice, Waldhauer helped develop a sourcebook and training course for attorneys that, together, provide nationwide guidance on protecting

archeological resources. *Archeological Resources Protection: Federal Prosecution Sourcebook*, a compendium on criminal investigations, site damage assessments, and civil penalties, has been distributed to all U.S. Attorneys, federal land managing agency solicitors, select Indian tribes, and senior departmental law enforcement officials. "Overview of Archeological Protection Law" is a 16-hour course that assists federal, state, and tribal attorneys in proceedings against looters.

The National Park Foundation also honored partners from Justice's general litigation/legal action section and office of legal education for interagency cooperation in protecting archeological resources.

Assistant Attorney General Jo Ann Harris joined the National Park Foundation in publicly recognizing the archeological assistance division partnership with the Department of Justice. "This is an exciting time," she said, "for all of us who are concerned about the protection of the . . . archeological resources which constitute part of the treasure of our history and prehistory in the United States."

tion officers, is encouraging legitimate archeological investigations of ship and aircraft resting underwater. Like other federal agencies, the Navy is bound by the National Historic Preservation Act to protect its historic properties. Even miscellaneous debris scattered across the ocean floor constitutes an archeological site. The Navy's involvement is being funded by the Department of Defense Legacy Program.

Managing these submerged resources involves more than basic preservation. Some wrecks contain war graves, some hold undetonated explosives, and others went down with sensitive weapons systems.

Though they are harder to get to than sites on land, submerged wrecks are a strong attraction for the treasure hunter, which is why laws were passed to protect them. Looters have been successfully prosecuted in court cases such as *Hatteras Inc. v. the USS Hatteras* (1984) and *U.S. v. Richard Steinmetz* (1992).

Under certain conditions, recreational diving is permitted. But, given the hazardous cargo some vessels contain, divers are urged to



A NEW ZEALANDER'S VIEW

Under a Winston Churchill Memorial Fellowship, New Zealander Kevin Jones journeyed from Illinois mound sites to Virginia battlefields to compile the just-published *Archaeological Site Stabilisation and Reconstruction in the United States*. His findings will interest land managers, curators, and site interpreters as well as archeologists.

The New Zealander reports on eighteen sites in seven states, noting successes as well as shortcomings. To stabilize sites, some Civil War parks in the East have replaced brush and weeds with indigenous grasses. The technique, though effective, requires close management and has therefore been implemented only in circumscribed areas. The cost is initially high so Jones suggests it will be years before its effectiveness can be compared to conventional techniques. (He particularly focused on Virginia because of his familiarity with the "action plan" for the Petersburg battlefield detailed in the 1989 Andropogon Associates'

report *Earthworks Landscape Management Manual*.) The cost-effectiveness of stabilizing sites rather than excavating them is not widely understood, Jones says.

The true cost of excavation, he concludes, is often not incurred by the digging itself, but by inadequate site reporting, curation, and conservation. Jones also looks at the effectiveness of on-site interpretation and environments restored after logging.

Archaeological Site Stabilisation and Reconstruction in the United States: Winston Churchill Memorial Fellowship Report (51 photographs, 116 pages and appendices) is available for \$26 from the Science and Research Division, Department of Conservation, P.O. Box 10-420, Wellington, New Zealand, fax 0064 4 471 3279.

Above: Although root networks can stabilize soil—aiding site protection—a fertile surface can drive them to damage archaeological deposits, Jones says.

approach them with caution. Diving at sites in sanctuaries managed by the National Park Service or National Oceanic and Atmospheric Administration requires an agency permit.

Anyone who discovers a Navy wreck is encouraged to notify the Naval Historical Center. Looting should be reported to the Coast Guard, the local state historic preservation officer, or the state underwater archeologist. Recovery of historic ship or aircraft wrecks is considered only for educational or scientific reasons.

Under specific conditions, the Navy will consider allowing the recovery and loan of historic aircraft. Museums or other organizations that wish to recover such aircraft for display, educational purposes, or archeological investigation should contact the Naval Historical Center.

For more information, contact the Naval Historical Center, Office of the Senior Historian, Washington Navy Yard, 901 M St., SE, Washington, DC 20374-5060, (202) 433-7229/7230, fax (202) 433-3593.

Man Charged with Looting 5,000-Year-Old Site

In a remote part of the desert, on BLM land near Winnemucca, Nevada, lay an archeological site that is about 5,000 years old. Buried in what is thought to be a dry lake bed were two young Native Americans in woven baskets, a variety of artifacts described by archeologists as "invaluable," and hints at a Native societal hierarchy previously unknown.

Unfortunately, the discovery was not the result of a professional excavation. Instead, it arose out of a search by law enforcement officials at a residence in Oregon. After a three-month investigation into the clandestine excavation of the previously undiscovered site, authorities arrested Jack Lee Harrelson, 54, of Grants Pass, Oregon.

The search warrant was served by the Nevada BLM, the special investigations unit of the Oregon State Police Fish and Wildlife Division, and the Bureau of Indian Affairs under the direction of the Josephine County district attorney's office. Harrelson had the prehistoric burial baskets on display in his home, as well as other funerary objects. The remains of the two children were placed in plastic garbage bags and buried in a garden.

Harrelson was charged under Oregon state law with two counts of abusing a corpse, one count of aggravated theft, two counts of tampering with evidence, and two counts relating to the unlawful possession of gambling devices.

Investigators believe the Nevada site was being visited and robbed of artifacts over a period of three years. Archeologists estimate that it is among the region's five most important sites. The damage caused is incalculable. BLM and Forest Service archeologists are assisting in the recovery of artifacts and human remains at Harrelson's residence. Materials seized so far are figured to be worth more than \$300,000.

S I T E W A T C H H O T L I N E S

reporting vandals and looters

Alabama	(205) 242-3184
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Arizona	(800) VANDALS
Colorado	(303) 236-9568
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Bureau of Land Management	(800) 333-SAVE (Oregon and Washington) (800) 722-3998
National Park Service	(800) 2-ARPA-86 (800) 478-2724

what you don't know can

hurt

you

by Joseph Flanagan

ILLUSTRATIONS BY RANDALL MAYS

Each time you open up the ground there's a chance you'll find an artifact, confirm a thesis, or launch a study in a new direction. But the odds are much better that you'll have opened a cornucopia of ways to get hurt, and they run the gamut from lethal microbes to hundreds of pounds of falling earth.

The person who described archeology as "the pursuit of gentlemen scholars" never considered a simple fact about soil: it can be deadly. In the desert, a cubic foot of it can weigh up to 140 pounds. Take the recent excavation of an historic well in downtown Phoenix. As the well's profile was being photographed, an archeologist attempted to step out of the hole. The well face collapsed, burying her chest-deep. The woman, rescued after a 911 call, spent a day in the hospital.

The accident prompted OSHA and city safety officials to visit the site to see what went wrong. City archeologist Todd Bostwick,

was left pondering an aspect of the profession that is too often taken for granted. Archeology can be a dangerous business.

The perils of archeology are not restricted to collapsing trenches. Archeologists risk exposure to Lyme disease, valley fever, rabies, hantavirus, cryptococcosis, and an assortment of toxic wastes.

It occurred to Bostwick that archeologists are often unaware of the potential hazards of their work. So he and John Hutira, a project manager with a cultural resources firm, created "Archeology and Safety," a workshop designed to heighten awareness.

The workshop was a sobering experience for Carol Ellick, public education coordinator for Statistical Research, Inc. Driving home, she recalled one of her own experiences in the field: working in an orchard while spraying was going on nearby, which may have caused the headaches and fatigue she experienced afterward. She thought of the time a dig partner had excavated in a 3 x 3 foot hole that was almost 10 feet deep. The soil was a fine-grained, sandy loam, and each time a bucket was set down on the edge, bits of the wall would crumble. "We've all excavated in holes that were dangerously deep," she says, "and were very lucky."



Since 1970 and the advent of contract archeology, the number of excavations has mushroomed. Crews work the field longer, going from project to project, which amounts to an overall increase in exposure. Michael Fink of the Arizona Department of Health—one of the few to have written on health hazards in archeology—says that just the fact that archeologists spend so much time around dust poses a potential threat. “One never knows what’s on those dust particles,” he says. Aerosolized droplets of urine from rodents, for example, are known to carry hantavirus. In 1993, there was an outbreak of the disease in the Four Corners area, resulting in several deaths. Trash and packrat middens are a potential source of hantavirus, whose symptoms are similar to the flu, but which can obviously get much worse.

There are a number of fungal spores that, when stirred up with dust and inhaled, can have effects ranging from flu-like symptoms to sinus and pulmonary infections. In advanced cases, lung damage can result. Coccidioidomycosis (valley fever), mucormycosis, histoplasmosis, cryptococcosis, and blastomycosis are all fungus-borne. The list gets longer and the symptoms more worrisome when ticks, spiders, snakes, and scorpions are considered. Archeologists “need to tell doctors where they’ve been and what they’ve done,” says Fink.

For Ellick, the issue was important enough to warrant attention at the national level. She contacted Bostwick about cosponsoring a workshop at the Society for American Archaeology’s annual meeting in Minneapolis last May. “Archeology and Safety: What You Don’t Know Can Hurt You” was the result. The workshop featured Mitz Del Caro of the Minnesota OSHA office, industrial hygienist Charles McJilton—an expert in toxic waste—and Dan Williamson, who represents a manufacturer of hydraulic trench-shoring equipment. Bostwick recounted the Phoenix incident (complete with slides), and Fink discussed infectious diseases.

To those who may suggest he’s exaggerating the problem, Fink says he is calling attention to the *potential* of sickness and injury. One of the workshop’s main objectives, says Ellick, was simply to clarify “who to contact and what you should know before you go into an area to dig or do a survey.”

One thing to know is past land use. It’s entirely possible, for example, to find oneself knee-deep in PCB-laden soil. Fink remembers an excavation in which the crew discovered pipes full of a black syrupy substance. “We didn’t know what it was, but we had to leave.” A member of a crew searching for the 1691 bulkhead of the historic Derby Wharf in Salem, Massachusetts, recalls everyone having to don protective masks because the harbor was loaded with lead contaminants from 18th century tanning. Lead-laced sediments, freeze-dried by the winter temperatures, swirled around the site when the wind blew in off the harbor. Historic period bottles can also contain toxics, such as radium.

OSHA, says Bostwick, plays little active role in monitoring sites or informing archeologists. Many say there is plainly “some confusion” on what OSHA’s role is. Safety standards often differ from state to state, and although they must all meet OSHA minimums, this makes it difficult for crews to keep track.

OSHA does have explicit standards for construction excavations, with fines of up to \$7,000 for violations. Citations can be issued for not having a person versed in the standards on site, for inadequate access to it, for sharing drinking cups, and for the absence of shoring. By many accounts, however, these standards are seldom enforced at archeological excavations.

Thanks to recent efforts like hers, Ellick says that “OSHA is now beginning to look at archeological fieldwork and realizing that standards need to be developed.” Says Bostwick, “It’s been a lack of information on both sides.” Part of the problem is a reluctance to call attention to a project. Another is a long-standing attitude of complacency, the assumption that somehow digging for artifacts doesn’t entail risk.

Some report a troubling but pervasive attitude that archeologists are lucky to be working in their chosen field and so are not expected to be too particular. Recalling the colleague who dug in the unstable pit, Ellick says the message is “If you don’t do this job, there’s someone else waiting in line.”

One archeologist involved in promoting safety says that because contract archeology is so competitive, firms are reluctant to adopt safety measures that might add to a project’s cost. He suggests that contractors be instructed to separate out safety costs when bidding on projects.

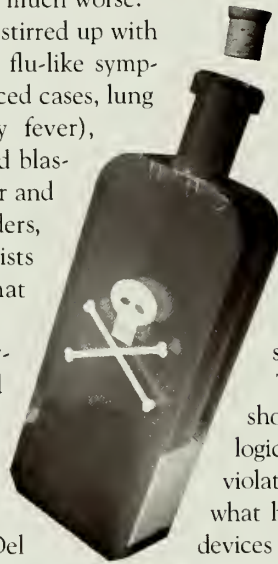
The most common hazard, says Bostwick, is a lack of shoring. “You could probably walk onto many of the archeological sites in this country and see instances where they are violating shoring and trenching standards,” he says. This despite what he describes as “an amazing variety” of hydraulic shoring devices considered effective on construction sites. One model operates like a piston, expanding and exerting pressure on either side of a trench. These units, placed at four-foot intervals, leave the trench profile visible. Some companies will customize equipment.

The potential for innovation is great, but, says Bostwick, “there’s no dialogue because archeologists aren’t using [the equipment].” Another archeologist observes that, for digs and surveys associated with highway construction, an investment is made in flashing barricades to ward off traffic but not in shoring equipment.

Clearly there’s still a lot of work to do. Bostwick recently witnessed attendees from the Phoenix workshop in deep, unshored trenches. And the turnout for the SAA session was dispiriting. One of the participants asked “Why, if there are 2,000 people attending this conference, are there only 8 of us in here?”

There are signs, however, that some are getting the message. One firm, among many calling for information after the recent workshops, plans to incorporate the SAA outline into its company manual. In Iowa, the office of the state archeologist now complies with federal occupational safety standards. Supervisory archeologists and field crews must be familiar with safety procedures and document measures taken to comply.

Meanwhile, Ellick is planning another session at the SAA annual meeting next year. She sums up the situation succinctly. “Archeologists are working in very unsafe conditions. We need to work with OSHA so that we can be safe and do our jobs.”



For more information, contact Carol Ellick at (520) 721-4309.

Banes of the Field—and Beyond

Before fieldwork, call the Centers for Disease Control about potential hazards in the area.

AIRBORNE FUNGUSES

Blastomycosis

Exposure Fungus-borne. Contracted by breathing spores in the dirt.

Symptoms Vary from cold and flu-like symptoms to problems with bones and other organs.

Exhaustion. Detectable in a blood test.

Treatment Chemotherapy.

Precautions Wear dust mask, spray down back-dirt, screen down wind from other excavators, restrict use of blowers and maintain safe rules for their use, i.e., don't blow dust toward others. (Exposure, treatment, and precautions are the same for all mycoses: blastomycosis, coccidioidomycosis, cryptococcosis, histoplasmosis, and mucormycosis.)

Coccidioidomycosis (valley fever)

Contracted in the same manner as blastomycosis.

Symptoms are also similar. Pulmonary infection is common.

Cryptococcosis Contracted in the same manner as blastomycosis. Symptoms are also similar. Pulmonary infection is common.

Histoplasmosis Contracted in the same manner as blastomycosis. Symptoms are also similar. Pulmonary infection is common.

Mucormycosis Contracted in the same manner as blastomycosis. Pulmonary infection is common.

Symptoms Cranio-facial form of disease causes severe nasal and paranasal sinus infections. Bone destruction can occur in turbinates and hard palate. Pulmonary form may also occur.

MOSQUITO-BORNE DISEASES

St. Louis Encephalitis

Exposure Mosquito bites.

Symptoms Disease of the central nervous system. Mild illness may include fever, headache, and neck pain. Severe illness may result in stupor, disorientation, coma, spasticity, tremors, convulsions, or death.

Treatment See a physician immediately.

Precautions Use repellents. Stay indoors at night where mosquito pools have been identified. Check local reports by health department. (Treatment and precautions are the same for all mosquito-borne diseases.)

Western Equine Encephalitis

Contracted in the same manner as St. Louis encephalitis; symptoms are similar.

TICK-BORNE DISEASES

Colorado Tick Fever (viral)

Exposure Tick bite.

Symptoms Acute fever with remission. Second bout of fever 2-3 days later.

Field Treatment Remove tick with tweezers. Seek medical assistance. Inform doctor of exposure and geographic location.

Medical Treatment Antibiotic therapy.

Precautions Wear light-colored clothes so ticks can be easily spotted. Tuck pant legs into socks. If in a tick infested area, check body nightly. Dogs should have tick and flea collars and receive tick baths.

(Treatment and precautions are the same for all tick-borne diseases.)

Lyme Disease

Exposure Carried by the western black-legged tick in the West, by the deer tick in the East. Tick must be on body 24 hours to transmit disease.

Rocky Mountain Spotted Fever

Exposure Tick bite.

Symptoms Sudden onset of fever persisting for 2-3 weeks (if untreated). Lethargy, deep muscle pain, severe headache, and chills. Rash may appear on extremities around the third day, including palms and soles of feet, and spread rapidly to much of the body.

Tick-Bite Paralysis

Exposure Uncommon but worldwide.

Symptoms Paralysis that usually disappears when tick is removed.

Tick-Borne Relapsing Fever

Exposure Ticks from pack rats and their nests. Nests in old buildings o high risk.

Symptoms Recurrent fever. Disease shows up on a blood smear.

OTHER DISEASES

Hantavirus Pulmonary Syndrome

Exposure Primarily carried by deer mouse. May be in pack rat excrement, nests. Other rodents may carry.

Symptoms Fever, headache, dry cough, muscle aches, GI track problems.

Treatment Don't ignore, treat immediately.

Precautions Avoid exposure. If in doubt, wear a high efficiency respirator with particulate filter. Spray nest with Lysol, kill rodent, use Raid to kill fleas, then spray with Clorox to kill hantavirus. Wear rubber gloves and mask when disposing of rodent.

Note: Lysol can contaminate C-14 carbon isotope.

Plague

Exposure Prairie dogs, deer mice, wood rats, rabbits, and fleas. All rodents should be avoided.

Symptoms Swollen lymph glands.

Treatment Easily treatable with modern medicines.

Precautions Same as hantavirus. Trap and kill rodents prior to working in an area or as encountered.

Rabies

Exposure Contracted when bitten by skunks, foxes, bats, domestic animals.

Symptoms Do not wait for symptoms, seek medical attention immediately.

Treatment Treatable with modern medicines.

Precautions Avoid animals that are behaving strangely. Avoid nocturnal animals out in the day. Don't touch bats that are on the ground. Don't pet strays.

Tetanus

Exposure Contact with soil. Contracted through cuts and breaks in the skin.

Symptoms First symptom is painful abdominal muscle contractions. Also, spasms, painful muscle contractions in neck and body.

Precautions Tetanus shot before fieldwork.

Tularemia

Exposure Found in rodents. Contracted by handling carcasses, or by inhaling or ingesting infectious material.

Symptoms Ulcer at site of introduction, swelling of lymph glands, pharyngitis, abdominal pain, diarrhea, vomiting, pneumonia.

Treatment Antibiotic therapy.

Precautions Wear rubber or latex gloves when handling rodents. Avoid deer flies and ticks in endemic areas. Avoid drinking, bathing, swimming, or working in untreated water where wildlife is infected. Use rubber gloves when handling carcasses, especially rabbits.

TOXIC WASTE

Exposure Toxic waste can be inhaled, absorbed through the skin or eyes, or ingested via contact with the mouth (coffee cups, etc.).

Precautions Learn about possible contaminants before going into the field or historic buildings.

MISCELLANEOUS HAZARDS

Traffic Exposures Those directing traffic around a site require specific protective measures.

Overhead Loads Do not stand under loads being handled by digging equipment.

Mobile Equipment If a mobile equipment operator does not have a clear and direct view of an excavation's edge, there must be a warning system.

Water Accumulation "Water is a trench's worst enemy." For emergencies, may need rescue equipment on hand (SCUBA, lifelines with tripods).

Lab Hazards Inadequate or incorrect storage and labeling of hazardous materials, including asbestos, carcinogenic chemicals, apium.

Reclaiming

HANFORD

At first glance, Hanford appears to be a sterile wasteland—an industrial complex of nuclear reactors, chemical separation plants, and toxic dump sites surrounded by a sea of sagebrush. When



In 1943 a city sprang to life along the Columbia River, whose banks are rich with the remains of ten centuries of human settlement. Its purpose: to fuel the bomb that would end World War II. Today, the challenge is to reclaim the heritage of Hanford, Washington—now one of the nation's most contaminated federal properties.

As cleanup continues amidst calls for less government spending and regulation, site managers and archeologists look for faster, better, and cheaper ways to preserve the cultural record—even as Native Americans demand a voice in what happens to their legacy.

viewed from a preservation perspective, however, Hanford comes alive as one of the richest cultural and historical sites in the Pacific Northwest, if not the western United States. Perhaps more than anything else, this legacy symbolizes the challenges that people here have faced for millennia. Today, the challenge to the current resident, the Department of Energy, is to clean up after 45 years of manufacturing and processing nuclear materials, which has transformed Hanford into one of the most contaminated federal sites in the country.

To the cultural resources staff of DOE's environmental restoration program, the challenge is to protect and preserve Hanford's heritage as the cleanup of over 500 contaminated areas proceeds. With public demand for less government spending and politi-

Above: Wanapum elders converse with DOE officials; Opposite (left to right): A quonset-hut city housing some 94,000 workers sprung up almost overnight along the Columbia; the region's ridges; massive underground tanks for radioactive waste being constructed in 1944.

BY DARBY C. STAPP, JOY K. WOODRUFF, AND THOMAS E. MARCEAU

ORD





Site Diagram

RICHLAND

C O L U M B I A R I V E R

YAKIMA RIVER

YAKIMA
SEATTLE

3

KENNEWICK
PASCO
SPOKANE

410

cians calling for less regulation, it is clear that we cannot conduct cultural resource management in the 1990s as we did in the 1980s and 1970s. New approaches are needed. Nowhere is that more evident than here.

Hanford encompasses approximately 560 semi-arid square miles in southeastern Washington state, roughly half the size of Rhode Island. The site is in the Hanford Reach, the only stretch of the Columbia River not flooded by hydroelectric dams. Rising from the generally flat landscape are a series of ridges, hills, and mountains—vestiges of 15,000-foot-thick basalt flows deposited 17 to 15.5 million years ago. Cataclysmic floods during the last glacial period, 20,000 to 11,000 years ago, shaped the current-day terrain, which alternates between gravelly terraces, stabilized dunes, and sands that shift with the strong winds that dominate.

With sweltering summer temperatures routinely exceeding 100° and vegetation that appears mundane, it is not surprising that first-time visitors wonder how anyone could live here. But as the cultural record indicates, people have done so successfully for thousands of years.

The few archeological excavations to date reveal a more-or-less continuous occupation beginning around 10,000 years ago. Archeological remains of villages and areas for fishing, hunting, and other uses abound along the river, with a prehistoric economy based largely on deer, salmon, plants, and shellfish.

Around 4,500 years ago, precipitation increased, creating a more productive environment. Pithouses began to appear, suggesting a shift from foraging to more permanent settlement. About 2,200 years ago, however, the climate dried out and food resources dwindled. To survive, the people had to either intensify food gathering locally or travel to more distant territories. They did both, leading to what archeologist Jim Chatters calls “a virtual revolution” in mobility and demography.¹ By about 1,500 years ago, clusters of pithouses and fishing camps lined the river, with hunting and root camps spread across the landscape.

Although the horse, introduced over two centuries ago, enhanced trade with other regions, the arrival of Euroamericans in about 1800 was accompanied by the spread of disease and loss of access to land and resources. This quickly led to a period of cultural devolution, which only recently appears to have ended.

Because the Reach avoided dam flooding, Hanford boasts the best preserved archeological record of the river’s prehistory. Moreover, the security afforded by 50 years of government control has protected sites from collectors and developers (although there has been looting of the river’s shore and islands).

The significance of these sites goes beyond science. The descendants of the prehistoric peoples are still here, and deeply interested in Hanford’s legacy. The Wanapum Tribe, whose ancestors are buried where they lived at Hanford, now resides 15 miles upriver at Priest Rapids. Although the Wanapum never signed a treaty with the U.S. government, the DOE involves them in decisions affecting Hanford lands. Two other native groups—the

Confederated Tribes and Bands of the Yakama Nation and the Confederated Tribes of the Umatilla Indian Reservation—are also consulted, because Hanford is on lands they ceded to the U.S. government. The Nez Perce are included in decisions as well, because they retain rights arising from the Walla Walla Treaty of 1855.

To the region’s Native Americans, cultural resources are sacred connections from the past to the present and future. They want them preserved and protected.

“The Gettysburg of the Cold War”

In 1943, when the government took the land for the war effort, about 1,500 people had to move. Most were Euroamerican families who came early in the century to start farms and orchards in what seemed like rich agricultural territory. Although the sandy soils and arid environment limited their success, many adapted and by 1940 nearly a thousand people lived in the communities of Hanford and White Bluffs.

The government, after purchasing the property, gave residents as few as 30 days to leave their farms, homes, and businesses, which were soon bulldozed. The foundations, however, survived relatively intact and today the site is dotted with hundreds of Pompeii-like structures reflecting life in rural America during the early 20th century.

The plutonium project faced major uncertainties from the beginning, as historian Michele Gerber documents in *On the Home Front: The Cold War Legacy of the Hanford Nuclear Site*.² How to cool the reactors, how to perform complex chemical separations, how to maintain health and safety—all were unknowns. Nevertheless, Hanford kept moving forward, driven by commanding general Leslie Groves’ philosophy that “nothing would be more fatal to success than to try to arrive at a perfect plan before taking any important step.”³

The Hanford B Reactor produced the plutonium for the Trinity test at Alamogordo, New Mexico—the world’s first atomic explosion—on July 16, 1945. On August 9, an atomic bomb containing plutonium from the reactor was dropped on Nagasaki, Japan. Five days later, the Japanese surrendered, and World War II was over.

Regardless of one’s opinion of the bombing, the fact that the United States built the world’s first full-scale nuclear reactor and produced the plutonium in about a year’s time is one of the greatest scientific and engineering feats of the modern era. Over the decades, more reactors and processing facilities were constructed as Hanford joined the fight for nuclear superiority against the Soviet Union. “Hanford is the quintessential Cold War site,” says David Nicandri, director of the Washington State Historical Society, who dubbed it “the Gettysburg of the Cold War.”⁴

Stopping a Showstopper

In today, the plutonium complex is shut down, and the task has turned to cleanup. Much of the waste is along the Columbia, where nine reactors once operated and where most of the cultural resources reside. There are about 50 dump sites in each reactor area, with

DuPont illustration provided to clamoring journalists after the Manhattan Project went public.

THE HAZARDS OF HANFORD

Rattlesnakes, microorganisms, dehydration—these are some of the hazards archeologists have faced since they started working in the field. More recently, they've realized that industrial areas pose their own potential threats.

Here at Hanford, staffers are specially trained in managing radioactive and hazardous materials, and wear protective clothing and dosimeters whenever the work demands it. Technicians check for contamination when we are in areas that involve any risk, and we do not go into places known to be contaminated.

Joy Woodruff, who excavated an archeological site close to a contaminated area, elaborates. "Some people may not understand how we can dig near reactor areas, but at no time did I feel my health was threatened. The technicians used their Geiger detectors and portable monitors to inspect the screens, backfill piles, artifacts, equipment, and side walls and floors of the test pits. At any time you could ask them to inspect something for you. At the end of the day it was required for everyone at the excavation site to be surveyed for contamination head to toe before leaving. No dangerous radiation levels were ever detected."

As the environmental restoration accelerates, we will have to address some complex issues. Will it be better to leave the contamination in the ground and not disturb archeological materials? Should artifacts be excavated prior to remediation, potentially exposing archeological workers to contamination? What about Native American remains? We will soon begin discussions with the DOE, state historic preservation officer, and most importantly local tribes to develop procedures for situations such as these.

waste trenches for clothing, tools, and other refuse contaminated with low levels of radioactivity. Other trenches contain variously contaminated liquids, chemicals, and radionuclides, which are leaching into the soil.

Hanford utilizes about a third of the budget for DOE's environmental restoration program, developed to deal with sites in the nation's nuclear weapons complex. With a projected 1996 budget of \$5 billion, it is the largest program of its kind in the world. This cleanup, ultimately, may take \$50 billion.

Preserving and protecting cultural resources is one of the many technical, economic, and social issues here. They have been actively managed since 1987, when DOE established the Hanford Cultural Resources Laboratory. Operated by Pacific Northwest Laboratory, the facility maintains permanent site

records, project files, and collections for DOE. The lab also conducts project reviews for Hanford contractors as well as sitewide cultural resource studies for archeological sites and the built environment.⁵ Westinghouse Hanford Company, Hanford's operating contractor, provides sitewide services by allowing its historian, Michele Gerber, to write building histories and document technological processes. She also evaluates buildings for eligibility on the National Register.

In 1995, the environmental restoration contractor, managed by Bechtel Hanford, Inc., established its own cultural resource office and assigned one of its subcontractors, CH2M Hill Hanford, Inc., to run it. The need for the office was obvious. "Given the restoration project schedule and resource demands, as well as the volume of soils along the river requiring remediation, we anticipated that cultural resources could be a showstopper," says Terese LeFrancois, manager of environmental sciences. "An internal cultural resource team would be more cost effective, provide faster response, and provide continuity for such a critical element of our cleanup program."

The office, headed by Thomas E. Marceau, a former deputy state historic preservation officer from Wyoming, is proceeding on three major fronts to address DOE's mandate to do the work faster, better, and cheaper. "Proactive" has become a byword.

Involving Local Tribes

In 1993, DOE began meeting with the four Hanford tribes, first individually and then collectively. While each had its own concerns, the basic message from all four was similar. They wanted changes in the program, and greater involvement.

One of the major points was perhaps best expressed by Jeff Van Pelt, cultural resource program manager for the Confederated Tribes of the Umatilla Indian Reservation. "We're not talking about stones and bones archeology! Hanford staff have to realize that cultural resources are more than stones and bones. To us, cultural resources are not just archeological and sacred sites, but traditional use areas, the river, landforms, animals, fish, and plants. Cultural resource management at Hanford needs to integrate all these elements."

Tribal representatives believed Hanford had been managing its cultural resources piecemeal, designating some areas worthy of protection and others not. "How can I say this area is important

and that area is important, but in between isn't?" asked Richard Buck, cultural resource representative for the Wanapum Tribe. "All the land is important."

To gain a holistic perspective, the tribes wanted DOE to appreciate their entire cultural system. This meant conducting oral histories and other special studies, which sometimes include surveys of areas not slated for cleanup at Hanford.

Tribal staff also expressed concern about revealing the names and locations of sacred sites, unwritten knowledge passed between generations that is not meant to be openly shared. The tribes reiterated the need to restore land so that native plants and animals could thrive once again.

Out of the meetings came an informal commitment from DOE to work more closely with the tribes. DOE and contractor staff now meet regularly with them to review cleanup projects, identify traditional use areas, develop appropriate actions, and employ tribal staff to do the work. Recently, for example, Wanapum elders advised on how to protect cultural sites during cleanup. Similar efforts with the other tribes are planned.

These efforts are not to be construed as the formal consultation mandated by various federal laws and DOE's own American Indian Policy. This consultation can occur only through government-to-government discussions between DOE management and tribal leaders. However, we believe that the more Hanford and tribal cultural resource staff interact, the more likely it is that higher level consultations will proceed smoothly.

Avoiding the Lose-Lose Scenario

If work stops once it begins because cultural resources, which should have been documented or anticipated, are encountered unexpectedly, the consequences will be immediate; the resource could be damaged, and increased costs to the project in terms of schedule and budget could be significant. It's just a lose-lose situation," says Lew Pamplin, manager of the project's natural resources section, which contains the cultural resources office.

As everyone in this business knows, the key to protecting



Clearing for a water line to cool reactor during deactivation.

archeological sites is to incorporate them into decision making as early as possible. Traditionally at Hanford, cultural resource issues were not addressed until planning was finished and fieldwork set to begin. To change the paradigm, this office assesses sites up front, identifying areas of potential concern and proposing plans of action to deal with them.

Each waste site is evaluated, taking the following into account.

Human Use Potential. If cultural resources are within 400 meters of the cleanup area, remediation is considered to have a high potential to impact them; within 100 meters, the potential is considered extremely high.

Further, areas within 400 meters of the river are considered to have high cultural resource potential. Therefore, cleanup there is considered to have a high potential for impacting them.

Degree of Land Disturbance Around the Waste Site. With construction photographs and observations as a guide, reactor areas are divided into three categories of disturbance: extensive, moderate, and minimal.

Size of the Contaminated Area or Waste Site. The size of the waste site directly impacts the probability for disturbing known or unknown archeological sites. The larger the waste site, the greater the amount of earth-disturbing activity associated with remediation. The deeper the contamination, the larger the excavation required to remove it.

By evaluating each waste site this way, we end up with a simple equation: $CRIS = CRP \times SCA$, where: CRIS = Cultural Resource Impact Score; CRP = Cultural Resource Potential (Human Use Potential + Degree of Land Disturbance); and SCA = Size of Contaminated Area.

From the results we can identify waste sites that have high or very high potential for impacting cultural resources. This information helps the tribes, cultural resource staff, and project managers focus on the highest priorities.

This new approach is made easier by the fact that everyone works together to carry it out. The issues identified in the action plans encourage greater communication among all parties, maximize protection of cultural resources, and minimize costs and potential impacts to project schedules.

A New Way

The current anti-regulatory, cost-conscious feeling pervasive across the country demands that we find a better way. The Hanford industrial complex offers a case in point.

Clearly Hanford is an important historic site. But with over 2,000 buildings and structures, regulatory requirements could easily impact project costs and schedules, especially if sufficient time has not been allowed.

To reduce these impacts, the environmental restoration contractor established an historic buildings task force composed of cultural resource professionals (including the contractor's archeologists, the Westinghouse site historian, and the Hanford cultural resource lab's architectural historian), engineers (nuclear, chemical, mechanical, etc.), and facility managers. The task force is looking at Hanford in its historical setting, identifying significant structures using a sitewide evaluative process, and developing appropriate mitigation measures based on specific

criteria that qualify a structure for listing on the National Register—all in consultation with the Washington State historic preservation office.

To date, the task force has developed four "evaluative contexts" to augment application of National Register criteria. These contexts describe the pre-Hanford era, the defense mission, nuclear technology (non-defense), and environmental management.

Presented in outline format, the contexts identify those elements and themes necessary to present the story of Hanford and its place in history. To facilitate clustering, the task force has devised a cross-classification matrix that combines structures into analytic units based on shared characteristics of function and property type. Although they are not fully developed historic contexts as defined by the National Park Service, they serve a comparable purpose—that is, to evaluate resources united by a common theme.

The task force has also developed a scheme that ranks each



Powerhouse under construction, 1944.

and the real prospect of further, more drastic reductions to come, these exemptions will allow DOE to focus time and funds on the most significant structures.

The synergy from this collective effort is saving the taxpayers hundreds of thousands of dollars while still producing quality documentation of a priceless heritage.

Why We Must Adapt

Cultural resource managers across the nation face immense challenges these days. Native Americans want a more active role, taxpayers want federal budgets reduced, and private industry wants regulatory burdens removed. The preservation community needs to listen and adapt accordingly. If we don't, we run the risk of losing the very legislation that is the basis for our efforts.

At Hanford, we are learning that Native Americans will work with us if we are sincere in our efforts to involve them, if we

structure according to factors such as its physical condition, the type and timing of likely impacts, and National Register status. These scores are then used to determine not only the order in which structures must be considered, but also the extent of the documentation effort required. In this way, cultural resource needs are fully integrated into and complement project schedules.

Lastly, the task force is obtaining a waiver from the requirement to record entire classes of resources on historic property inventory forms. These resources consist of modular buildings; liquid waste cribs, tanks, and trenches; solid waste burial grounds; fuel storage tanks; and other minor elements of the industrial complex. These resources will be addressed instead in a descriptive format within the document that will describe the site evaluation process.

Through these exemptions, the state preservation office has nearly cut in half the number of resources that must be formally documented. Given reduced budgets for this fiscal year

THE OTHER SIDE OF THE TABLE

Thomas E. Marceau

There is probably no better opportunity to see all sides of historic preservation than by going from a state historic preservation office to a prominent contracting firm. After 12 years with the Wyoming SHPO, I now find myself in the role of requestor rather than reviewer. As cultural resource supervisor with Bechtel Hanford, Inc.—lead contractor for the Hanford cleanup—I'm literally looking at things from the other side of the table.

Wyoming is a "development-oriented" state, and as the deputy historic preservation officer, I was involved in project compliance and preservation laws on a daily basis. Trying to do this job in an environment charged with pro-development sentiments taught me a great deal. I learned the fine points of the regulatory program, the workings of the state and federal government, and the way business is conducted in the "real world."

After more than a decade of this work, I moved into the private sector, where the objective is always to come in ahead of schedule and under budget. The Department of Energy, the Hanford site manager, has requested that their contractors do things faster, better, and cheaper. This reflects both the political change in Congress and the constantly diminishing funds allocated for cleanup. Current efforts to remove "regulatory burdens" and shrink the deficit are reminiscent of the early '80s, when then-Secretary of the Interior James Watt sought to promote development by using similar measures. Industry had made strong inroads into the preservation program and the president's Advisory Council on Historic Preservation went from an advocate to an arbitrator. Today, the council is fighting for its existence. Despite its many accomplishments, we need to learn again that historic preservation is viewed by many as an impediment, that restrictions can be legislated, and that even good programs can be made better.

Private industry values innovation for the progress it brings. But progress need not occur at the expense of the past. It is possible to ensure compliance and recognize the bottom line. Private firms' capital, so often responsible for remarkable achievements in industry, can be applied to preservation as well. Individual project reviews can be replaced by reviews of categorical activities, individual site inventories by integrated area-wide evaluations, and independent staff assignments by multidisciplinary teamwork.

In meetings with the Washington SHPO, I am always aware of my changed role. Yet the words we speak have a familiar ring. We both want to protect the past. Now, however, I speak to project managers as a member of a team that puts preservation on the table at each meeting. Reasonable recommendations are heard and acted upon. This, after all, is what everyone wants.

broaden our interpretation of cultural resources, and if we focus on tribal recommendations to manage sites rather than merely acquire information about them. Project personnel, for their part, will incorporate our findings into planning because they want to avoid problems once work begins. And we are discovering that the state preservation office is increasingly open to new ways of doing business as long as DOE maintains its good faith efforts to comply with the regulations.

This is not to suggest that the job is easy. Working with federal and tribal bureaucracies can often be frustrating. Explaining the extent and location of contamination to tribal members entails appreciation for differing worldviews. Convincing project people that 30-year-old buildings are significant and need to be documented, while cleanup staff get laid off for lack of funds, is distressful. Surveying and testing for archeological sites in potentially contaminated areas requires special training in handling hazardous materials.

But when one walks along the river with Bobby Tomanawash, a Wanapum Elder, as he explains why the land is important to his people and points out plants that were used, and continue to be used, the place comes alive. And when one goes to a sterile concrete structure and site historian Michele Gerber describes its role in the Cold War, the place comes alive. At these times, it becomes clear that we must persevere in our attempts to preserve and protect the heritage that endures along the banks of the Columbia.

Darby C. Stapp is cultural resources coordinator and Joy K. Woodruff cultural resource specialist with CH2M Hill Hanford, Inc. Thomas E. Marceau is cultural resource supervisor with Bechtel Hanford Inc. For more information contact Thomas E. Marceau, Bechtel Hanford Inc., P.O. Box 969, Richland, WA 99352, (509) 372-9289, fax (509) 372-9702 or Darby C. Stapp, (509) 372-9290, e-mail: darby_c_stapp@rl.gov.

Illustration and photographs courtesy Department of Energy.

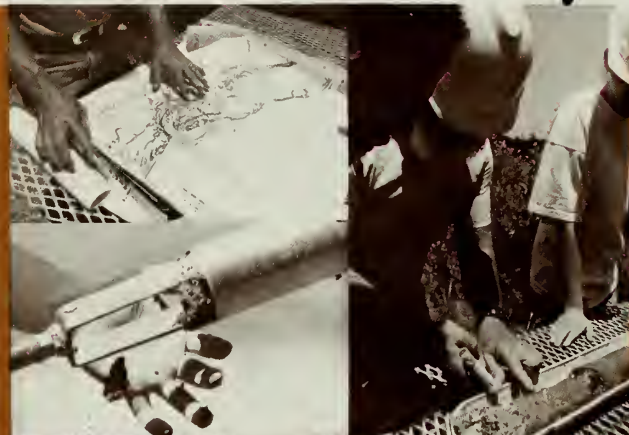
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The Big Picture

Despite its prominence in the birth of this nation, much about the island of Jamestown remains unknown. Most of its archeological deposits lie undisturbed nearly four centuries after settlement by Europeans. The original town's 20 acres have been studied extensively but, with few exceptions, the rest of the island's 1,500 acres—domestic complexes, industrial sites, and military features—have been uncharted.

Now, with the anniversary of the founding of North America's first permanent English colony approaching in 2007, the Park Service, the College of William and Mary, and the Colonial Williamsburg Foundation are working together to write the island's definitive history. The live-year project, which



began in 1992, is singular for reasons other than the unprecedented documentation it will produce. The Jamestown Archaeological Assessment is truly interdisciplinary, revealing the rich context framing the events of the early 17th century.

Archeologists have been joined by biologists, botanists, geologists, architects, historians, and computer specialists to unravel a story that goes back 11,000 years, and beyond. A clear departure from previous work, the project will reconstruct environmental and land use patterns since the late Pleistocene.

Scientists are studying the remains of Jamestown's inhabitants as much for clues to earth's evolving environment as for their role in the historic tableau. The big picture—and the closeup.

Above: The sciences are coming together to interpret Jamestown Island's archeological landscape in the first investigation of its kind. Clockwise from top left: David Powars of the USGS tracks the likely debris field strewn from an asteroid thought to have plunged into the Chesapeake 35 million years ago, throwing sunami-sized waves as far as the Blue Ridge (circle indicates point of impact); scientists examine core sample for clues to long-ago environments; crew takes magnetometer readings for signs of the fabled 18th century Travis mansion, once a clandestine supply stop for American ships during the Revolutionary War; William and Mary student removes core sample from a test hole.

Right: Colonial Williamsburg Foundation archeologist Audrey Horning (inset) removes bricks from a test hole. Partners are making the most of the project, offering a field school and sessions in remote sensing as well as welcoming visitors to the field.

Photographs by Tony Belcastro





Except for 22 acres owned by the Association for the Preservation of Virginia Antiquities, Jamestown Island has been part of Colonial National Historical Park for the last six decades. In the 1950s, a fledgling form of remote sensing was used on the town proper, and today its descendants are being employed to limit costly and destructive excavation elsewhere on the island.

The remote sensing is a piggy-back project that teaches field schoolers how to use the technology. After that—also part of coursework—they conduct limited excavations to verify their data and answer questions posed by historians. Finally, computer specialists use the information to map early land use, industrial sites, and shore erosion for the park's geographic information system.

So far, the survey has turned up about 50 sites, dating from the Paleoindian period to the 19th century—including a Clovis projectile point estimated to be about 11,000 years old. There is also evidence of farms established by the 17th-century settlers.

Continued study will flesh out two chapters in the Jamestown story: how Native Americans used the land before 1607 and how the town's "suburbs" developed after that time.

In a related project, archeologists with the APVA are excavating a 40-foot-square pit to find evidence of a 1607 fort previously thought to have eroded into the James River. The excavation has yielded thousand of artifacts, including a ca. 1610 siege helmet, armor, sword and musket parts, beads of glass and copper, and coins caked with hundreds of years of rust, their imagery enhanced by X-ray equipment from NASA's Langley Research Center.

Interpretive signs are posted at the excavations—which are open to visitors—and updated as more is discovered. The Jamestown partners also publish a newsletter to apprise other professionals and the public of the study's progress.

This comprehensive look at the island would not be possible without the partnership among the Park Service, the Colonial Williamsburg Foundation, and the College of William and Mary—along with the involvement of the APVA. What is discovered about Jamestown Island will be extrapolated to characterize the entire region, and many long-standing research questions may soon be answered.

Left: The details of reconstructing an environment. William and Mary geologist Gerald Johnson takes advantage of USGS deep coring equipment to examine soil from three hundred feet below the surface. Through corings, geologists are documenting the rise and fall of the sea level, while paleobotanists are studying the island's vegetative history.

Below: One of the thousands of artifacts yielded by test holes, this baling seal was the mark of approval for agricultural products such as tobacco and flax. An intact seal bearing the merchant's imprint certified that the bale had been inspected and not tampered with.



Making Magic

.....
with educational partnerships



BY RAY MORRIS

The experts told Fort Frederica staffers that 4th and 5th graders were too young to understand the complexities of archeology. They were wrong. In the first year of the national monument's education program, over 200 kids were schooled in the particulars of the discipline, from excavating to exhibiting the cache they uncovered in the soil of the fort's Georgia island home. According to a local teacher, many said they "really never understood Fort Frederica before this program."

The keys to its success, it turns out, were planning and enthusiastic partners. Plus a little luck.

Most educational projects start off with careful planning, but this one arose through an alignment of the stars. By chance, circumstances presented Fort Frederica with what the great southern philosopher Pogo would call "an insurmountable opportunity." The ingredients for a winning program literally landed in our lap, but we lacked the resources to put them together. Then we heard the magic word: partnerships.

Fort Frederica, one of the country's finest colonial period archeological sites, resides on Georgia's St. Simons Island, a tropical isle known for its sauna-like summers and roads shaded with canopies of oak and Spanish moss. The fortified settlement, founded by the British in 1736, was virtually destroyed by a great fire in 1758. Archeology has been important since the fort's establishment as a national monument in 1936. Noted historical archeologist Charles W. Fairbanks of the University of Florida, along with many other distinguished professionals in the discipline, have conducted over 45 investigations here. Today, much of what is known about colonial life on the southern British frontier is due to Frederica's archeological legacy, supplemented by the historical record.

Unfortunately, many pages of the island's past have been pilaged or bulldozed into oblivion by bottle hunters and metal detectorists. In some segments of this coastal society looting is a rite of passage for young people and even adults. NPS offi-

Above: Hands-on history—a student checks out a find; Right: Remains of the town of Frederica, which burned to the ground in 1758, with restored barracks in the background.



cialists wanted to stem this trend and protect the fort's extensive archeological holdings in the process. Thanks to this program, the Park Service has become a force in the local community, encouraging developers to consider the island's archeological heritage when planning roads and buildings.

The program started with the rediscovery of what University of Tennessee archeologist Nick Honerkamp later dubbed "an archeological landfill." Following tips from files the author discovered at the National Archives Records Service, the Park Service pinpointed the general location of over a ton of artifacts—from pot sherds to iron bomb fragments—excavated and reburied at the fort in the 1960s. They had been reburied primarily because there was limited space to store them and because many were duplicates of better quality pieces (which were retained for future preservation). But because the material was unprovenienced and without documentation, the strict NPS standards regarding archeological excavation—which would have prohibited their re-unearthing for strictly educational purposes—did not apply.

The next step required imagination.

What should we do with a trench full of redeposited arti-

facts? Superintendent Mike Tennent suggested an educational program, but the park's physical facilities were already too small and a "bricks and mortar" project was out of the question in light of today's tight budgets.

By chance, a county elementary school was being built less than a quarter mile from the park gate and we were eager to become its first partner-in-education. Actually, the school literally began with archeology in mind. The Glynn County school district altered the original site plan when archeologists Marsha Chance and Greg Smith—hired to survey the area—found a Frederica-period structure. At the first meeting with principal Barbara Kriner, Tennent brought up using the trench as a teaching tool. Kriner jumped at the idea. The school had been built with growth in mind; perhaps a future classroom could be permanently dedicated as a heritage education center for the entire district. At a later meeting the school board agreed.

The park's ability to recruit other partners would decide the fate of the project.

Because of the program's unique appeal, it seemed that everyone wanted in. The Fort Frederica Association, led by

A Little Legwork Pays Off

Respecting a school district's hierarchy is vital to permanent, lasting partnerships. First contact should be with principals and the district's curriculum specialists. Principals are the CEOs of the school and generally make the decisions on whether to participate in a program. Principals also know the strengths of their staff and which teacher or team of teachers may be interested or qualified to work with a new program. After securing a principal's approval, depending on the district, other approvals are generally needed, perhaps all the way to the elected school board officials.

Do your homework before you meet with the principals or other school officials. Statewide and local curriculum standards for each grade and subject matter field should be researched carefully ahead of time. That way you can figure out how to fold archeology into the curriculum to reinforce the teaching of required subjects such as science and history.

You need to do the legwork because teachers and school staff usually can't. Education is quite a complicated business today and dependent upon meeting and documenting completion of national, statewide, and local mandates. In short, your curriculum must fit to their program. By doing your homework before you meet with school officials you can offer educators a hands-on method to teach or reinforce mandated subject matter.

President J. Dewey Benefield, Jr., provided \$10,000 in matching money. The school district and board of education contributed over \$75,000 in buildings, materials, salaries, and other support. Fort Frederica put up over \$45,000 in direct and in-kind assistance. The St. Simons Optimist Club, an organization chartered to assist children, wrote a check. Executive Director Linda King of the Coastal Georgia Historical Society, the regional historical group, donated funds and offered the expertise of collections

manager Pat Morris in drafting the curriculum's curatorial and museum segments.

But the lead grant, for \$40,000, came from the board of directors of the National Park Foundation, through the Parks As Classrooms® program overseen by program officer Wilke Nelson and education director Patti Reilly. NPS chief of interpretation Corky Mayo later added a supplemental \$5,000 NPS Parks As Classrooms® grant to support additional development.

The program was to be teacher-driven, much like the Charles W. Fairbanks Room, located at Georgia's Ocmulgee National Monument. It was assumed that the NPS would provide only general assistance and not actually teach, which would have made the program depend on heavy staff commitments that could vanish with future reductions or priority changes. The teachers would teach; the Park Service would act as a catalyst by bringing in professionals to train the teachers and provide oversight during field-work exercises. The NPS would also provide equipment and develop the elements of the curriculum vital to the program's success.

Now that the artifacts had been found, the facilities identified, and the money raised, we got to the hard part: developing the curriculum, training the teachers, and then seeing first hand if 4th and 5th graders could learn about archeology comprehensively. Few had tried this before and no one had attempted a program like this one with 9- to 11-year-olds.

Working with school educators requires skills not normally found in courses offered to archeologists, historians, and NPS interpretive staff (see sidebar). Like archeology, the field of education has its protocol. Fort Frederica had on staff two former professional teachers, the author and Ranger Marion Robinson, the park's education coordinator. With over 25 years combined experience they were invaluable in working with educators and developing the team building needed to nurture the program.

The chief educational objective was to enable the kids to explore historical archeology from theory, to research design, to dig, to artifact analysis and conservation, through to exhibit construction and interpretation. These are the standard elements in archeology. From this point the Fort Frederica interpretive staff,



The thrill of discovery.

"The hook for teachers is that this [program] is not an add-on to their already busy schedules. [It] folds into—and enhances—segments on science, history, mathematics, writing skills . . ."

led by the author and Robinson, began to consult with the experts.

Major assistance came from many prehistoric and historical archeological education institutions. Meg Heath—formerly of the Crow Canyon Archeological Education Center, who now oversees the BLM's education program at Colorado's Anasazi Heritage Center—was instrumental in developing background lessons by providing the very successful *Intrigue of the Past* curriculum, which the park adapted for historical archeology. Dozens of archeologists helped school and park officials develop the objectives for the program.

Likewise, fort staffers retooled concepts borrowed from institutions like the Crow Canyon Center, Colonial Williamsburg, and Virginia's Alexandria Archeology. Many dozens of curricula were reviewed.

We also made sure the curriculum's layout was teacher-friendly. We modeled ours after the concise environmental education curriculum of Everglades National Park's noted program, developed with the input of many educators and graphic designers working in partnership. The layout was clean and concise.

This style clearly broke with the past. The Park Service used to evaluate curricula by how much they weighed. But today many parks realize that teachers do not have the time to wade through a welter of detail to educate their students, let alone adapt 10th grade materials for 4th or 5th graders. The product has to work right out of the box. Our lessons follow current trends in education, containing modifications for slower (at risk) learners and challenge segments for accelerated students.

The first unit is a modified version of the initial seven lessons of *Intrigue of the Past*. The second unit focuses on processes and procedures for classes conducting mock fieldwork in the archeologically disturbed area—cleaning, analyzing, and cataloguing artifacts as well as writing reports. Unit three focuses on the preservation techniques available to archeologists and curators today. Unit four—a values clarification exercise based on the NPS Southwest Field Area's *Silent Witness* (also developed with a National Park Foundation grant)—includes a segment on material culture connections to the present. The final segment permits students to develop a museum exhibit and interpret their work for lower grades.

This year and next, teachers from an additional eight elementary schools in the district will have the opportunity to use the program. Special on-site boxes will be developed for the other schools to do preliminary work in their classrooms, reducing bus trips to the park.



Measuring terrain with a transit.

All are simplified so teachers can quickly read the material, know what state requirements are met, and teach using prepared handouts and supplemental materials. The curriculum is written near the grade level, again simplifying the teacher's task. The overall emphasis is on the process of archeology since this is not a graduate course.

The hook for teachers is that this is not an add-on to their already busy schedules. The curriculum folds into—and enhances—segments on science, history, mathematics, writing skills, and other disciplines that teachers must cover under the Georgia State Education Quality Core Curriculum Requirements. In short, through this program, teachers teach and students learn concepts required to be taught during the school year. Teachers therefore do not have to back up to cover segments.

Also, all teachers attending the training workshops receive valuable continuing education credit hours, which are necessary for their state certification each year. Training the teachers was perhaps the most crucial element of the program.

Teachers who wish to use the curriculum must attend annual training and periodic updates taught by leading archeologists



Examining artifacts.

with educational expertise. Park staffers, whose involvement was heaviest in the launching of the program, mainly give an “assist” during the on-site digs. In the 1996 school term, graduate students in archeology from Armstrong State College will oversee students, teachers, and park staff during field and lab work, and prepare a professional report of their findings.

Even the teacher training is another partnership at work. Archeologists and educators with specialized experience in working with children and training teachers were sought. Instructors included Meredith Poole from the Colonial Williamsburg Foundation, Nick Honerkamp of the University of Tennessee at Chattanooga, Meg Heath, Richmond historian and educator David Ribblett, archeologist Anne Yentsch of Savannah’s Armstrong State College, and lead teacher Ellen Provenzano. The NPS Southeast Archeological Center also provided valuable assistance.

The annual 4-day training seminar exposes teachers to archeological principles and fieldwork, focusing on the role of analysis, the archeological lab, and material culture connections with the present. Additional 1-hour training segments train teachers in using the education center’s resources, equipment as well as a collection illustrating artifact types.

In the first year, over 220 4th and 5th graders from Oglethorpe

Point Elementary were taught. The program was an unqualified success in the view of educators and archeologists who reviewed it. This summer we contracted lead teacher Provenzano to make refinements the reviewers suggested.

We realized from the start the importance of refining the product after seeing how it played with the students and teachers. Another independent review by professional archeologists is planned for next year. Following a two- to three-year trial period the park will move for final publication following a thorough testing phase.

Equipping the lab, classroom, and dig area turned out to be the largest consumer of time and money. But again we were able to cut corners. Sifting stations were constructed by the park maintenance division, and the entire site was cleared by Boy Scouts as part of an Eagle Scout project.

The results were worth all the effort. After only 15 months we have a fully open field site (protected by a 10-foot fence and electronic countermeasures) and two classrooms at Oglethorpe Point Elementary (one a full-scale lab, the other an interactive video/audio long distance learning center [see sidebar, opposite page]).

Where does the future lie with this program? We plan to package it—along with reproduction artifacts—for use at other schools and archeological sites.

For the leaner NPS staffs and budgets of the future, partner-

ships have a profound effect of building constituencies and educating the public through children. NPS units like Everglades National Park have known for years that one of the best ways to effect societal change is through educating new generations. Our target is to teach over 2,500 children annually within the next five years.

When we embarked many people in archeological education told us that 4th and 5th graders were too young to understand the complexities of archeology. But we found that they could handle the science, the math, the history, and the other subject areas that archeology builds on. What's more, these students are more receptive than 6th through 8th graders, who are beset by the turmoil of puberty and other social factors. Educators know that little brain growth occurs from 5th through 8th grade as that is a period of rapid physical development. It really isn't until 9th grade when intellectual development again rapidly accelerates.

A secondary objective of the program is to institute an archeology club for middle and high schoolers, where interested students can continue to learn and perhaps choose a career in archeology or historic preservation. The school district plans to track students through their senior year to see how many choose to study archeology or a related field that they learned about through the program, such as surveying, chemistry, science, or history.

Although some may be sufficiently intrigued to pursue a career in the discipline, the program's goal is not to recruit future archeologists. The intent is to expose students to a way of understanding the past through archeological information and techniques. We also hope students will appreciate the importance of protecting sites from wanton destruction by looters and vandals.

Fort Frederica is not inventing anything through this program. We are merely revamping the tried and true. And it works. Many students have said they "really never understood Fort Frederica before this program," says Provenzano. "Archeology is a level playing field for all of the students," she adds. "No student came into this class with experience or prior reading and in several instances students with a long history of discipline problems became better students, some even want to become archeologists." It is well known that many students make career leanings in 4th and 5th grade.

Partners make great allies for the Park Service and the preservation movement but they do come with strings. Partnerships force park managers and staffs to take an active role as educational leaders in their communities by truly treating their Parks As Classrooms®. In the short run, the parks will be better protected because they will be better appreciated. But students are truly the primary beneficiary of this program as it is they who will shape the future.

For more information, contact Ray Morris, chief of interpretation and resources management at Fort Frederica National Monument, at (912) 638-3639.

Photographs courtesy Ray Morris/Fort Frederica National Monument.

LONG DISTANCE LEARNING



Thanks to a new interactive center at Oglethorpe Point Elementary, information can be shared, questions asked and answered, and students hundreds of miles apart can examine a 250-year-old artifact simultaneously, chatting on who might have used it and how. This space age system, a demonstration site installed this summer at the NPS Archeological Education Center at Oglethorpe Point, is plugged into the world's largest interactive audio/video network, the Georgia Statewide Academic and Medical System, also known as GSAMS. The network currently operates 206 sites within the state and has satellite capability to the world through the Georgia Public Television Network.

GSAMS links smaller hospitals with larger ones to aid in the diagnoses of disorders and diseases, but the system's principal use is in public education. Throughout 1995-1996 100 additional GSAMS units will be placed in educational institutions throughout the state. Up to eight schools can participate simultaneously via a special T1 telephone line hookup made possible by a \$50 million dollar reimbursement back to the state by Southern Bell.

This enables the Fort Frederica education program to be shared with school children throughout the state as a result of the partnerships among the Park Service, the National Park Foundation, the Fort Frederica Association, and the Glynn County School System.

Implementing the Native American Graves Protection and Repatriation Act

Sample Inventories to Assist Tribes, Museums

Two sample inventories of Native American remains and associated funerary objects have been distributed to all federal agencies, museums, Indian tribes, and Native Hawaiian organizations to help fulfil their obligations under NAGPRA. All inventories must be completed, in consultation with tribal officials, by November 16 of this year. The samples were issued in a memorandum signed by DOI Assistant Secretary of Fish and Wildlife and Parks George T. Frampton, Jr.

Section 5 of the act requires two inventories to be submitted, one for culturally affiliated Native American human remains and associated funerary objects and another for culturally unidentifiable Native American human remains and associated funerary objects. Remains may be considered "culturally unidentifiable" if they are not documented in museum records, connected to a federally recognized Indian tribe, or if there is a lack of information connecting an affiliated earlier group to a modern-day tribe.

The first sample illustrates situations where human remains and associated funerary objects are affiliated with a particular tribe. Entries are

organized by individual set of remains, with a brief description of each associated object. The description covers the events surrounding the object's acquisition, where it was recovered, information obtained through consultation with tribes, a summary of evidence used to determine its affiliation, and the name of the affiliated tribe or Native Hawaiian organization. Completed inventories in this category must be sent to culturally affiliated tribes or Native Hawaiian organizations by May 16, 1996 (six months after the completion deadline of November 16), with a copy to DOI's departmental consulting archeologist.

The second sample includes human remains and associated funerary objects for which no culturally affiliated tribe or Native Hawaiian organization can be determined. In the sample, the information supplied to establish the inventory as "culturally unidentifiable" meets the criteria described above.

Inventories of culturally unidentifiable remains and associated funerary objects must be sent to DOI's departmental consulting archeologist by May 16, 1996, for distribution to the NAGPRA Review Committee. Samples are available from the NAGPRA program office.

Soliciting Comments on Culturally Unidentifiable Remains

Draft recommendations regarding the disposition of culturally unidentifiable Native American human remains have been prepared by the NAGPRA Review Committee and distributed to all federal agencies, museums, tribes, and Native Hawaiian organizations for public comment. The act requires that the committee prepare the recommendations.

The draft recommendations include observations by the committee as well as alternative approaches for determining disposition. One of the committee's most important recommendations is that "ultimately, decisions about what happens to the remains of Native American individuals from anywhere in the United States and associated funerary objects should rest in the hands of Native Americans."

The committee intends that the draft recommendations be widely circulated for comment. The committee emphasizes that the recommendations are preliminary and every element is open to change depending on the feedback.

Written comments, which should be received no later than September 30, should be addressed to:

NAGPRA Review
Committee
c/o Departmental Consulting
Archeologist
Archeological Assistance
Division
P.O. Box 37127, Suite 210
Washington, D.C. 20013-
7127

To obtain a copy of the draft recommendations, please call the NAGPRA program office at (202) 343-4101 or send a fax request to (202) 523-1547.

Review Committee to Meet in Anchorage

The NAGPRA Review Committee will hold its tenth meeting October 16-18 in Anchorage.

The meeting will focus on discussing comments on the committee's draft recommendations on the disposition of culturally unidentifiable human remains and on the application of NAGPRA in Alaska. The meeting is to be held in conjunction with the annual meeting of the Alaska Federation of Natives.

Two Historical Societies, Three Museums Complete Inventories

Six notices of inventory completion have been published in the *Federal Register* since the last issue. The Nebraska State Historical

First New Mexico Inventory Completed

The first inventory of human remains and associated funerary objects from New Mexico has been completed by the National Park Service and the required notice of inventory completion published in the *Federal Register*.

On June 6, 1995, superintendent Roy W. Weaver of Bandelier National Monument in Los Alamos County announced the completion of an inventory of human remains excavated from Rainbow House. The inventory, done in consultation with Pueblo representatives, includes the fragmentary remains of seven individuals excavated between 1948 and 1955 by Fredrick Worman of Adams State College and Louis Caywood of the National Park Service. The remains are believed to date between 1412 and 1453 AD.

The inventory notice states that while artifactual evidence does not allow specific identification of a single culturally affiliated Indian tribe, examination of cultural materials (such as ceramics, stone tools, and other items)—along with oral history of traditional and religious practice—indicates probable cultural affiliation between the human remains and various Pueblo groups. The Park Service has listed all of these likely culturally affiliated tribes in the notice.

The Park Service decision to identify more than one culturally affiliated tribe was based in part on recent consultations with Pueblo representatives. Those representatives stated their interest in the Rainbow House human remains, but indicated that they might not be able to resolve issues related to the disposition of them by the November 16 deadline for inventory completion.

By listing more than one culturally affiliated tribe, the Park Service establishes a framework for repatriating these particular human remains to any of the listed Pueblos, or to a subset of them. In this case, the information available and the results of consultation made this approach preferable to determining the remains to be "culturally identifiable." If the latter approach had been taken, the Secretary of the Interior, in consultation with the NAGPRA Review Committee, would have considered how to treat the remains, a lengthier procedure that is still under development. NPS intends to continue working with all interested Pueblos and other tribes to promote broad agreements regarding the disposition of these and other Native American remains when appropriate.

Identification of more than one culturally affiliated Indian tribe or Native Hawaiian organization is consistent with the statutory language. Section 5 (d) of the act states that "[i]f the cultural affiliation of any particular Native American human remains or associated funerary objects is determined pursuant to this section, the Federal agency or museum concerned shall . . . notify the affected Indian tribes or Native Hawaiian organizations" [emphasis added].

Some museums and agencies have already completed inventories for which more than one tribe or Native Hawaiian organization was determined to be culturally affiliated. These include the Joshua Tree National Monument, the California Department of Parks and Recreation, the Peabody and Essex Museum, the University of Oregon, the Phoebe Hearst Museum, the Bishop Museum, the Peabody Museum-Yale, the Peabody Museum-Harvard, the Kaneohe Bay Marine Air Station, the Ahhe Museum, Acadia National Park, the Peabody Museum-Phillips Academy, the Los Angeles County Museum, the University of Alaska-Fairbanks, the Hood Museum-Dartmouth, and Earlham College.

Questions regarding the Park Service approach to determining the cultural affiliation of prehistoric human remains in New Mexico can be directed to Ed Natay, American Indian Liaison Officer, Southwest Systems Support Office, Santa Fe, NM, (505) 988-6896.



Society completed its inventory of 115 human remains and 555 associated funerary objects identified as culturally affiliated with the Pawnee Tribe of Oklahoma. California's Ojai Valley Historical Society completed its inventory of 180 human remains and 12,118 associated funerary objects identified as culturally affiliated with the Santa Inez Band of Mission Indians.

The Heard Museum of Phoenix completed its inventory of 3 human remains and 3 associated funerary objects identified as culturally affiliated with the Salt River Pima-Maricopa Indian Community. Two museums completed inventories of human remains identified as culturally affiliated with Hui Malama I Na Kupuna 'O Hawai'i Nei, the Office of Hawaiian Affairs, and the O'ahu-Kanai Island Burial Council.

The inventory from the Hood Museum at Dartmouth College of Hanover, New Hampshire, identified three individuals. The Moore Museum at Earlham College, Richmond, Indiana, included two individuals on its inventory.

Publication of these 6 brings the total to 33 published notices, describing 2,243 human remains and 85,291 associated funerary objects.

Letters of notification, which summarize the contents of the accompanying inventory in enough detail to help individuals or groups to identify cultural items to which they can reasonably be believed to be affiliated,

Training

Representatives from the NPS archeological assistance division will make presentations, conduct workshops, or teach classes on NAGPRA implementation at the following locations:

NAGPRA: Implications and Practical Application (three-day course offered by the University of Nevada-Reno). San Diego, CA, October 26-28 [Leanne Stone: (702) 784-4062].

National Congress of American Indians. San Diego, CA, October 26-28.

NAGPRA: Implications and Practical Application (three-day course offered by the University of Nevada-Reno). Washington, D.C., November 12-14 [Leanne Stone: (702) 784-4062].

American Anthropological Association annual meeting. Washington, D.C., November 15-19.

Society for American Archaeology annual meeting. New Orleans, LA, April 10-14, 1996.

NAGPRA: Implications and Practical Application. (three-day course offered by the University of Nevada-Reno). New Orleans, LA, April 14-16, 1996 [Leanne Stone: (702) 784-4062].

NAGPRA: Implications and Practical Application. (three-day course offered by the University of Nevada-Reno). Minneapolis, MN, May 2-4, 1996 [Leanne Stone: (702) 784-4062].

American Association of Museums annual meeting. Minneapolis, MN, May 4-8, 1996.

For additional information contact the identified person or Jean Kelley of the NAGPRA staff.

were published in the *Federal Register* as required by section 5 (d)(3) of the Act. A 30-day period following publication of each notice was allowed for any additional lineal descen-

dants or culturally affiliated tribes to contact the appropriate museum or federal agency official regarding proper treatment and disposition of sensitive cultural items.

Field, Maxwell Museums Publish Intent to Repatriate

Three notices of intent to repatriate have appeared in the *Federal Register* since the last issue. Chicago's Field Museum of Natural History has identified a wampum belt as an object of cultural patrimony culturally affiliated with the Oneida Indian Nation of New York. The Maxwell Museum of Anthropology at University of New Mexico has identified a Koyemsi Katsina (mudhead) mask as being both a sacred object and object of cultural patrimony culturally affiliated with the Hopi Tribe.

In addition, New Mexico's Cibola National Forest has identified 138 sacred objects as part of a prayer feather bundle culturally affiliated with the Pueblo of Jemez.

Nineteen notices of intent to repatriate have appeared in the *Federal Register*, representing 31,651 unassociated funerary objects, 192 sacred objects, and 16 objects of cultural patrimony (12 objects are identified as both sacred objects and objects of cultural patrimony).

Publication of a notice of intent to repatriate was suggested in the January 21, 1993, memorandum on summaries, inventories, and notification for those situations in which the summary process identifies unassociated funerary objects, sacred objects, or objects of cultural patrimony that are affiliated with a lineal descendant or culturally affiliated Indian tribe, Alaska Native village or corporation, or Native Hawaiian organization. A 30-day period following publication of the notice was suggested to allow addi-

tional lineal descendants or culturally affiliated Indian tribes to contact the museum or federal agency regarding proper treatment and disposition of the cultural item.

Grant Proposals Funded

The application deadlines have passed, the review panel has met, and the 42 NAGPRA proposals recommended by the grants panel are now official, signed by DOI Assistant Secretary of Fish and Wildlife and Parks George T. Frampton, Jr.

Sixty-one proposals from 59 Indian tribes, Alaska Native villages and corporations, and Native Hawaiian organizations—along with 56 proposals from 52 museums—were received in response to the mailing of applications and guidelines last September. Guidelines for tribal grants were sent to 760 federally recognized Indian tribes, Alaska Native villages and corporations, and Native Hawaiian organizations. Guidelines for museum grants were sent to 595 institutions that had submitted copies of their summaries to the DOI departmental consulting archeologist or that had requested grant guidelines for the previous year.

A more detailed report on the funded proposals for FY 1995 will appear in the next Federal Archeology.

For More Information

Contact C. Timothy McKeown, NAGPRA Program Leader, NPS Archeological Assistance Division, P.O. Box 37127, Washington, DC 20013-7127, (202) 343-4101, fax (202) 523-1547.

Application for Extension of Statutory Deadline for NAGPRA Inventory Completion

Section 5(c) of NAGPRA provides for museums that have made good faith efforts to complete their inventories to apply for an extension of time. The National Park Service previously published an application for extension of statutory deadline in the FY1995 NAGPRA Grants for Museums Application and Guidelines. Follow the directions below in submitting for an extension.

All museums, universities, historical societies, and other institutions that receive federal funds and possess or control Native American human remains and associated funerary objects must complete the NAGPRA-mandated inventory or apply for an extension by November 16. Extension applications must be postmarked by that date.

Questions should be directed to consultants Mandy Murphy or Jean Kelley at the NPS archeological assistance division, (202) 343-4101, or via e-mail to Mandy_Murphy@nps.gov or Jean_Kelley@nps.gov.

Extension applications must include two (2) copies of:

1. **A letter from the museum's governing body describing the reasons for the institution's expected failure to meet the November 16, 1995, deadline;**
2. **A description, organized by archeological site and/or geographic source, of Native American human remains and associated funerary objects in the museum's collection, including those on loan, which estimates the minimum number of individuals and the minimum number of associated funerary objects and identifies the current location of each;**
3. **A listing of the name, title, and phone number of all Indian tribe, Alaska Native village and corporation, and Native Hawaiian organization officials and traditional religious leaders who have been consulted regarding the cultural affiliation of the human remains and associated funerary objects (contacts may be confirmed prior to issuance of any extension); and**
4. **A written plan to complete the inventory by a specific date, including identification of the steps necessary to complete the inventory; position titles of the persons responsible for completion of each step; a schedule for implementing provisions of the written plan; and a description of efforts to obtain the requisite funding.**

A written inventory plan signed by authorized representatives of the museum and the Indian tribe, Alaska Native village or corporation, or Native Hawaiian organization culturally affiliated, or believed to be culturally affiliated, with a specified portion of the collection may be substituted for items 2, 3, and 4 required above. The inventory plan must specify the completion date for the inventory of human remains and associated funerary objects that are, or are likely to be, culturally affiliated with the signatory tribe, village, corporation, or organization.

Information requested in items 1, 2, 3, and 4 above must be submitted for all Native American human remains and associated funerary objects, including those that are culturally unidentifiable, not covered by inventory plans signed by the museum and a culturally affiliated Indian tribe, Alaska Native village and corporation, or Native Hawaiian organization.

The Testimony of Sand Creek and Oklahoma City

BY LAWRENCE H. HART



ON THE DAY of the Oklahoma City bombing, I was attending a NAGPRA compliance workshop and had a premonition about a friend. She was an attorney for a federal agency housed in the Murrah office building, and I was grieved to return home and find that my premonition was correct.

Seeing the devastation on television, it was not hard to imagine what had happened to my friend, who was a beautiful person to know. The news reports and the coverage of the rescue efforts gripped me daily. At the time, I was preparing for another NAGPRA workshop, but found it difficult to continue. I began to see similarities between the rescue and the effort to repatriate Native American remains, sentiments I have shared many times since through my involvement with NAGPRA.

As rescuers from around the country converged on the wreckage, an informal protocol about the handling of human remains became apparent. There was something particular, perhaps, about the grief of Oklahomans. It was decided that rescuers from Oklahoma would be the ones to handle the human remains. "These are our people," someone said. "We will handle them."

This was the feeling among a group of Cheyenne traditionalists sitting in a tipi two years ago trying to decide how remains of their ancestors should be handled. Some had been killed in the Sand Creek Massacre of 1864. Under ceremonial empowerment, but also with grief and a sense of propriety, it was decided that the remains of Cheyenne people would be handled by Cheyenne.

We knew through documentation that five of our eighteen repatriated ancestors were Sand Creek victims, and I thought of this similarity as the rescuers crawled through the rubble of the Murrah building spray-painting fragments of concrete to mark the locations of bodies.

My niece, a homicide investigator for the Oklahoma State Bureau of Investigation, was assigned the gruesome and highly emotional task of fingerprinting and identifying victims, many of them children. While searching for fingerprints at the

home of one missing child, she was offered plastic toys to examine by the devastated family. Instead, she found a large mirror bearing a small handprint, and from that it was determined that the child was indeed dead. The tragic scene was repeated in home after home.

Careful documentation allowed us to identify a young victim of the Sand Creek Massacre, described by Helen Hunt as "the most atrocious act ever committed in these United States."

She was a Cheyenne girl between the ages of 10 and 12, and for 130 years a record of her fate had been kept. Through oral tradition and congressional testimony, our Cheyenne people know what happened to this child, which made preparing her remains such a sorrow.

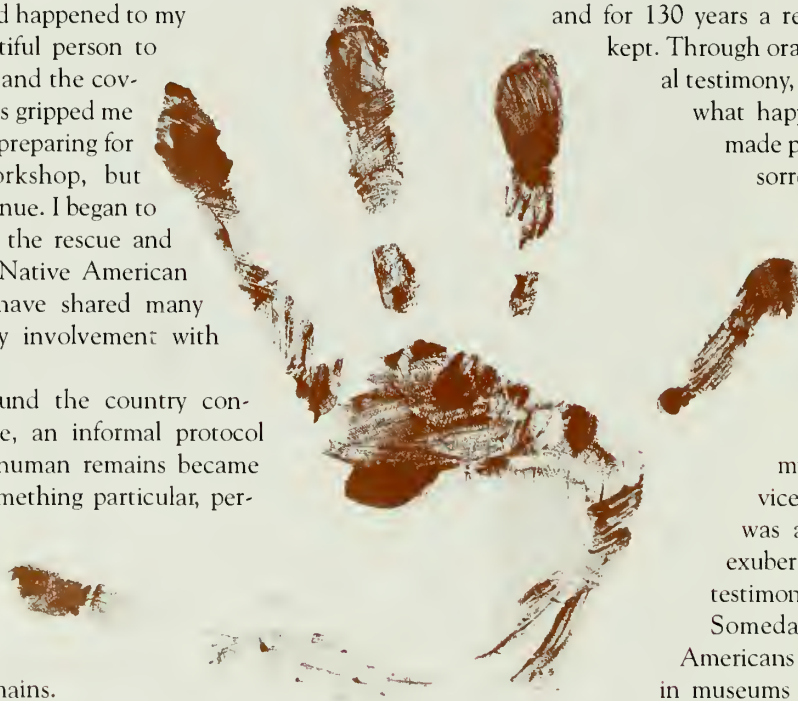
Sorrow characterized the mood at the funeral of my friend as well. But it soon changed. The minister, along with African American and Native American musicians, led those who came to mourn my caucasian friend in a service of celebration. For many, it was a closure to grief, and the exuberant celebration was a fitting testimony to my friend's rich life.

Someday in the future, Native Americans and their newfound friends in museums and other repositories will celebrate. They will celebrate when the final repatriation of human remains is made.

It will close what we view as a horrendous chapter in our tribal histories.

Oklahoma City, like Sand Creek, will not be forgotten. The site of the Murrah building is now viewed as a place apart from the ordinary. Oklahoma Assistant Fire Chief Jon Hansen put it best when he said that the site is "a kind of holy place, for so many died there." For 131 years, this is how we have viewed Sand Creek. It is still a place that is not ordinary. It is a special place; a holy place. After many generations, it still stirs our emotions. For future generations of those who lost their lives in Oklahoma City it will be no different.

The author is a Cheyenne Traditional Chief and Liaison on Repatriation for the Cheyenne Societies and Chiefs. For the past two years he has been involved in repatriation issues, working with tribal groups, museums, universities, and state and federal agencies.



Publications

The First Americans

The people who first crossed the Bering land bridge and gradually spread across North America have long been the focus of public fascination and scholarly research. Unfortunately, the few traces left of their presence are rare, threatened by development, and prized by collectors. The remains of the first Americans, once gone, are gone forever.

The Public Trust and the First Americans, just published by Oregon University Press, addresses the question of how we should manage these precious resources—and how they can be preserved while being used to educate the public. The volume, edited by Ruthann Knudson and Bennie C. Keel of the National Park Service, was developed from a symposium cosponsored by the NPS and the university's Center for the Study of the First Americans. The Park Service subvented publication.

A crucial part of learning about the people, the way they lived, and the world around them is an appreciation for the interrelationships among their remains and the contexts in which they are found. In the words of the editors, nothing is simple about understanding the lives of the continent's first inhabitants. This volume, by promoting ecologically based stewardship,

hopes to preserve what remains of their world's complexities in the hopes of better understanding ours.

The book includes discussion of the public trust doctrine in U.S. law, the concept of responsibility for materials related to the first Americans, relationships among researchers, the legal basis for protecting these resources, and opportunities for educating the public.

The Public Trust and the First Americans, 224 pages, paperback, \$24.95, is available from Oregon State University Press, 101 Waldo Hall, Corvallis, OR 97331-6407, (503) 737-3166, fax (503) 737-3170.

New Look at an Old Fort

During the New World power struggles between the French and British, and later with the new American republic, the fortifications at Isle Aux Noix played a critical role. Strategically located in Canada's Richilieu River, Isle Aux Noix had the potential to control passage between Lake Champlain and the Saint Lawrence River. Now Parks Canada has published *The Fortifications of Isle Aux Noix*, by Andre Charbonneau, a new look at the island's strategic role and an assessment of the fortifications' design within the setting of the scientific and contextual realities of the 18th and 19th centuries.

Available from Canada Communications Group, Publishing Supply and Services Canada, Ottawa, Canada K1A 0S9.

Village of Outcasts

In 1740, a girl raised in the comfort and privilege of genteel Connecticut society ran

northwestern Connecticut where, the legend has it, the fugitive couple built a cabin that became known as the Lighthouse (for the light between the logs seen by passing stagecoach drivers).

In the ensuing years, the area became a haven for escaped slaves, displaced

A TASTE OF ARCHAEOLOGY

Field work isn't quite so rough when John Ehrenhard is on the project. The chief of the NPS Southeast Field Area's interagency archeological services division has 25 years of experience as a professional archeologist, has published widely, and is a national leader in the federal stabilization and preservation program.

But Ehrenhard is also known for conjuring up culinary feasts in backwoods field camps and other unlikely places. In addition to his other accomplishments, he's been an accomplished chef for over 15 years. Now, thanks to his just-published cookbook, you can enjoy the pleasure of good cooking as well as the satisfaction of knowing you've helped a good cause. Half the proceeds from *A Taste of Archaeology*—which compiles 430 pages of Ehrenhard's favorite recipes—goes to the Archaeological Society of South Carolina to support avocational programs.

A Taste of Archaeology is available for \$12 (plus \$2 shipping and handling) from the Archaeological Society of South Carolina, c/o the South Carolina Institute of Archaeology and Anthropology, Attn: Nina Powell, treasurer, 1321 Peldleton St., Columbia, SC 29208-0071, (803) 777-8170.

off with an itinerant laborer of Narragansett Indian descent, sparking the wrath of her wealthy father and giving birth to the "Legend of the Lighthouse." In *A Village of Outcasts*, a book that combines storytelling with a case study of an excavation, Kenneth Feder brings us to an obscure wooded mountaintop in

Native Americans, European outcasts, and others who could not find a home in the larger society. The village, occupied from 1740 to 1860, is now on the National Register of Historic Places.

A convergence of archeology, ethnography, and documentary analysis, *A Village of Outcasts* gives a detailed

account of Feder's research intended to draw readers with no prior background in archeology. Two chapters on methods and a glossary are included. Available for \$16.95 from Mayfield Publishing Co., 1240 Villa St., Mountain View, CA 94041.

The Stratified Chesapeake

From *Historical Archaeology of the Chesapeake* (Smithsonian Institution Press, edited by Paul Shackel and Barbara A. Little) emerges a sweeping portrait of the region's history from early European settlement to 19th century urban life. This compilation of essays presents a history of past excavations as well as a sampling of recent historical archeological discoveries. Focusing primarily on the Chesapeake's western shore, the contributors assess relationships among Native Americans, Europeans, and Africans as well as stratification within cities, between urban and rural areas, and between the Old and New Worlds. Observations about domestic landscapes, architecture, dishware, neighborhoods, and households weave a narrative that brings to light the essential aspects of how the Chesapeake region's earlier inhabitants lived.

Contact Lisa Mincey (202) 287-3738 for more information. To order, contact Smithsonian Institution Press, Dept. 900, Blue Ridge Summit, PA 17294, (717) 794-2148. Cost is \$49 plus \$2.25 postage and handling for first book, \$1 for each additional.

Conferences

Beyond Research

The National Park Service, the Society for American Archaeology, the Society for Historical Archaeology, the National Trust for Historic Preservation, the National Conference of State Historic Preservation Officers, and the New Mexico State Historic Preservation Office will sponsor a conference entitled "The Public Benefits of Archaeology" to be held November 5 to 8 in Santa Fe. Subjects to be discussed include heritage education, tourism, living museums, archeology parks, and places of important events and spiritual significance.

Aside from papers presented by representatives of cosponsor organizations, the conference will feature a trip to Pecos National Monument.

For more information, contact Carol D. Shull, Keeper, National Register of Historic Places, National Park Service, P.O. Box 37127, Washington, DC 20013-7127, (202) 343-9536.

Eastern States Meeting

The Eastern States Archeological Federation will hold its 62nd annual meeting October 26 to 29 at the Radisson Hotel in Wilmington, DE. Symposia topics will include state and local chapter site surveys and excavations, special field and analytical methods, military sites, and coastal sites. For more information, con-

tact Ronald A. Thomas, MAAR Associates, Inc., P.O. Box 655, Newark, DE 19715, (302) 368-5777.

Forging Partnerships, Bridging Distances

The 1996 Society for Historical Archaeology Conference on Historical Archaeology and Underwater Archaeology will be held at the Omni Netherland Plaza, Cincinnati, OH, January 2 to 7. The conference themes are "Bridging Distances: Recent Approaches to Immigration, Migration, and Ethnic Identity" and "Forging Partnerships in Outreach and Education."

Contact Marcy Gray, Conference Chair, Gray and Pape, Inc., 1318 Main St., Cincinnati, OH 45210, (513) 665-6707, e-mail 76554.3313@compuserve.com or Kim A. McBride, Program Coordinator, Dept. of Anthropology, 211 Lafferty Hall, University of Kentucky, Lexington, KY 40506-0024, (606) 257-1944, e-mail kamcbroo@ukcc.uky.edu.

Into the New Millennium

"Archaeology into the New Millennium: Public or Perish" is the theme of the 28th annual Chacmool Conference, to be held at the University of Calgary. The conference will focus on the archeologist's role in the public sector and how the profession can remain viable

in the face of increasing cuts in funding.

By examining opportunities such as interpretive centers, tourism and development, consulting, and cultural resource management, the conference intends to provide a forum to discuss how archeologists can successfully balance their research goals with the needs of the public.

For further information contact Lesley Nicholls, Department of Archaeology, c/o 1995 Conference Committee, 8th Floor, Earth Sciences, University of Calgary, 2500 University Drive, NW, Calgary, Alberta, T2N 1N4, (403) 220-7131, fax (403) 282-9567, e-mail 13042@ucdasm1.admin.ucalgary.ca.

Ohio Prehistory

The Ohio Archaeological Council will sponsor its fourth annual conference on November 17 and 18 at Cleveland State University. The conference, entitled "Hunter-Gatherers to Horticulturists: The Archaic Prehistory of the Ohio Area," will attempt to synthesize research on the Archaic period in Ohio and surrounding areas, including the mid and upper Ohio River Valley and the Lake Erie Basin. Topics to include settlement, subsistence, social structure, ceremonialism, and decline.

Contact Kent Vickery, OAC Conference Coordinator, Department of Anthropology, University of Cincinnati, P.O. Box 210380, Cincinnati, OH 45221, (513) 556-5787, fax (513) 556-2778.



Nationally Noted



THE POWER OF I'TOI MO'O

By Kira Ramakrishna Badamo

The power of historic places lies in their ability to link us with our past. Ornate gingerbread on a Victorian home, the clean lines of a suspension bridge, or the remains of trenches where men fought to protect a way of life tangibly represent the way people have shaped their own history. Some historic places, however, have an importance that is rooted in place itself, vested with value and meaning despite the conspicuous absence of human modification.

At first glance, I'toi Mo'o, a 3,643 foot rock formation in Arizona's Ajo Mountains, is nothing more than a natural feature. A closer look at the crevices and ledges below, however, reveals the gifts of food, tobacco, and personal belongings left by members of the Tohono O'odham Nation. This is the place where the deity I'toi appeared to live among the Indians in the desert. He taught them how to build homes, hunt and grow food, and harvest the fruit of the saguaro cactus to make wine. When their instruction was complete, he retired to the top of the mountain, where people may go to seek his counsel. It is here that he will one day return to live among the Tohono O'odham, his chosen people.

The National Park Service recognized the central importance of I'toi Mo'o in the cultural life of the Tohono O'odham by listing it in the National Register of Historic Places in May 1994. The National Register

has always listed these traditional cultural places. However, preservationists have recently focused on the topic, a result of the tremendous increase in development of areas cultural groups consider important. What makes traditional cultural places historic is their connection to generations who have used them, and to the people who continue to do so. Their significance does not end at any given point in the past, but continues to the present. Because traditional cultural places are often closely linked to essential practices of various cultural groups, their protection may amount to preserving a way of life.

I'toi figures prominently in the cultural life of the

Tohono O'odham, particularly in the summer wine-making ceremonies held in various Tohono O'odham communities. I'toi taught his people to make the wine from the fruit of the saguaro cactus, which is often harvested in I'toi Mo'o's shadow, in Organ Pipe Cactus National Monument. According to Tohono O'odham tradition, the wine-making ceremony is essential to bringing the rains to the desert. I'toi is the link between practice and theory, ritual and belief.

Centuries of contact with European and Spanish cultures have transformed the Tohono O'odham, most notably in their acculturation of Christian beliefs. Celebrating the ripening of the fruit of the saguaro cactus, however, connects 20th-century Tohono O'odham groups with their ancestors, providing spiritual continuity. As one Tohono O'odham man told anthropologist Gary Nabhan, "I still believe in Jesus and the Saints, but I know too that when we drink the wine and sing for I'toi's help, the rains always come."

Traditional cultural places such as I'toi Mo'o function as living parts of the communities that ascribe cultural value to them. As such, we are compelled to preserve them. Listing in the National Register of Historic Places provides recognition that these often seemingly unremarkable places are important—both to the communities that use them, and as vital components of our shared cultural heritage.

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