



Archeology Program

National Park Service
U.S. Department of the Interior



July 2013 Archeology E-Gram

Liza Rupp, New Park Representative on NPS GIS Council

Liza Rupp, is the new Park GIS Representative on the NPS service-wide GIS Council (GISC). Liza is the archeologist and GIS specialist at Valley Forge NHP and supports smaller parks in Pennsylvania as well as advising Regional and WASO CR staff on geospatial technology for cultural resource issues. She will serve a two-year term on the GISC, beginning this month.

Her role on the GISC includes representing park GIS users and promoting coordination and communication. Her contributions will be sought in other areas of activity that the GISC anticipates for the coming year, such as Enterprise GIS, tools for implementing data standards and geo-enabling NPS staff and programs.

Liza attended Georgetown University, the University of Maryland, and Niagara College. She has an MA with a focus on historical archeology and certification in geospatial technology as well as professional experience in both fields predating her NPS career, which started in 2002. At Valley Forge NHP, she supports all divisions of an active and highly visible park, creating maps and data, providing technical support and training, and utilizing GIS extensively in her own archeological work.

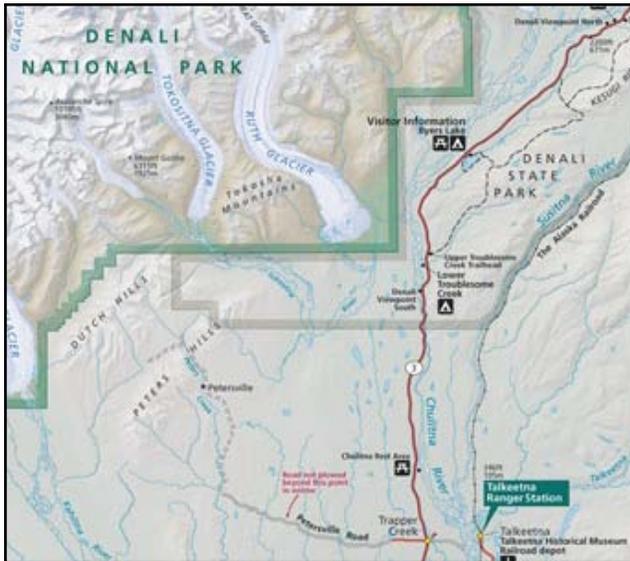


The GISC holds a regular monthly teleconference and, in mid-August, will hold a 'virtual face to face meeting' in which Liza will participate. Park GIS specialists across the NPS are invited to contact Liza, (and/or their Regional or Program GIS Coordinators), with ideas and concerns about the NPS Geospatial Program and related matters.

Denali National Park and Preserve Archeologists Leads Field School

The aspiring archeologists are looking for artifacts at a site just a few yards away from the Denali NP&P Talkeetna Ranger Station in Talkeetna, Alaska. The currently empty wooded lot once held a large structure that collapsed sometime after 1963. As of right now, it's a mystery what the students from local communities may find. "We're trying to get a better idea of when the site was used. We found artifacts from the sixties, and now we're getting a little lower in our excavation and starting to find stuff from the twenties." That's Phoebe Gilbert, park archeologist. She and other NPS staff are instructing the students as part of a new field school.

Gilbert hopes that the week-long course will help pave the way for the next generation of archeologists. "If you want to become an archeologist, one of the requirements is that you attend a field school—a college level field school. Those are generally month-long courses where you go out to a remote setting and camp and excavate at a site. This is much smaller scale but it will give the students a taste of what archaeological field work is like."



The students are spread out in small teams on the footprint of what was once a forty-by-sixty foot building. The young archeologists focus on finding artifacts in situ, meaning the items are left in the spot where they are found until they can be photographed and documented. The digging is done gradually, as participant Michael Kinsey of Talkeetna demonstrates. “What we do is first we dig five centimeters down. We scrape slowly, looking for stuff. If we find something, we leave it there. Then what we do is put the stuff in the buckets and take them to the screens and shake them out, hopefully to get some small pieces of artifacts that we missed.”

Some of the artifacts found so far include glass bottles, buttons, nails, and a carbide mining light, which dates back to 1925. Gilbert says that the most desirable items are the ones that give a clue to when they were made. The dig site is right on Main Street in Talkeetna, so not all of the items found date back to the original building, says Kia Heuton of Willow as she points out a blue extension cord buried a few centimeters below the surface.

The students will present their findings at the Community Arts Hangar in Talkeetna.

by Phillip Manning

NPS Archeology Program Posts Webpages on Archeology for Scouts and Others

Hey, Scouts!

The NPS Archeology Program has compiled a webpage for Girl Scouts and Boy Scouts. You'll find brochures to print, information on stewardship programs, and examples from parks of scouting programs. Check it out at <http://www.nps.gov/archeology/public/scouts.htm> .

Career Guide

A new version of the Career Guide is available on the NPS Archeology Program website. It includes links to colleges and universities with archeology programs, advice on getting experience in archeology, and more.

Find it at <http://www.nps.gov/archeology/public/career.htm> .

NPS Archeologists Explore New Ground for Interpretation at Fort Smith National Historic Site

NPS archeologists from the Midwest Archeological Center conducted exploratory investigations at Fort Smith NHS. Their project focused on land next to the park's historic Commissary Building. Built in 1838-1839, during the second military era for Fort Smith, the Commissary Building is the city's oldest standing structure. The research is part of the NHPA Section 106 review process for construction of a sidewalk leading to a new viewing platform.

The archeological work is part of a larger project that includes opening a central portion of the commissary's main interior and providing interpretive exhibits that include tactiles, audio/video, and scented pellets of various food items. Interpretation of the building's interior will include telling the story of the Hammersly family who resided there from 1890 to 1896 while working for the Federal Court under Judge Isaac C. Parker.

By Michael Groomer



The Commissary Building, Fort Smith

Sitka National Historical Park Totem Poles Enters Digital Age

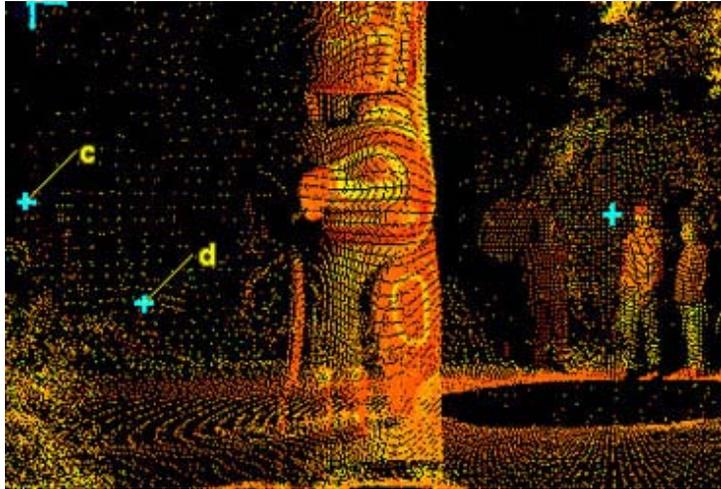
The formula to preserve totem poles at Sitka NHP from decay in the rainy climate of southeastern Alaska and keep them accessible to visitors has eluded caretakers for more than a century, beginning with the collection's arrival to Sitka in 1906. Removed from original villages by Alaska Territorial Governor John Brady for display at the 1904 Louisiana Purchase Exposition in St. Louis and 1905 Portland World's Fair, 14 totem poles from the collection returned to Alaska and entered into the care of local photographer E.W. Merrill.

A volunteer, and later the park's first custodian, selected by Stephen Mather, first director of the NPS, Merrill oversaw their initial placement in Sitka NHP. Since then, park custodians have patched, painted, treated, and sealed the original poles; raised their bases out of the ground; and commissioned the carving of new poles and the re-carving of the originals. Carvers turned to Merrill's photographs for dimensions and appearance of the intricate figures on poles that had deteriorated.

Following in Merrill's footsteps, whose photographs documented the totem poles, two specially trained architects from the NPS Heritage Documentation Services have digitally scanned many of the totem poles for a special collection in the Library of Congress archives. The documentation performed by laser scanner serves the same purpose as the photos, eliminating uncertain measurements for future carvers and facilitating cultural research. The team will transcribe the three-dimensional digital "point cloud" for each totem pole into line drawings on archival paper vellum and submit them to the Library of Congress along with photographs and data points, capturing the totem poles' existing conditions down to the millimeter.

However, drawings of the totem poles rendered even at the hand of a skilled architect using the latest technologies don't fully capture the magnificence of these cultural objects. Even when exhibited in the urban settings of the St. Louis and Portland, the totem poles retained the same allure for expo-goers and journalists that captivated famous naturalist John Muir, who saw the totem poles in their cultural context in 1897 and called them "the most striking of objects."

Heeding the NPS Director's Call to Action #17 "Go Digital!" park management will create interactive tours from high-resolution photographs masked over the three-dimensional models of the totem, including a close look at each figure of each pole from top to bottom. Just as the expositions were temporary exhibits, so are the virtual tours online. The next generation of caretakers will continue the mission of predecessors Brady and Merrill – finding the best resources and venues to share the totem poles with the largest possible audience.



This digital rendering of the Sitka's Gaanax.adi pole appears as dots called a "point cloud."
NPS digital rendering.

For Brady, showcasing the poles meant exposing 1.7 million visitors in two states to 14 totem poles collected from his territory. For Merrill, preservation meant photographing the totem poles, and creating Alaska's first national park to display them, which 200,000 people visit each year. In the digital age, scanning grants visitors worldwide high resolution access to the poles – following in the footsteps of the caretakers who have worked to preserve and display these “these most striking of objects” for more than a hundred years.

For more information about the totem poles in Sitka National Historical Park, go to <http://www.nps.gov/sitk/index.htm>

By Michael Hess

Conversation with an Archeologist: Pei Lin Yu

(The Archeology E-Gram is initiating a new series “Conversation with an Archeologist.” Each month, we talk with an archeologist working in the NPS.)

This month, we caught up with Pei-Lin Yu, Rocky Mountains Cooperative Ecosystem Studies Unit (CESU) Cultural Specialist for the Intermountain Region, at her duty station at the University of Montana. Pei-Lin says that her job is a lot like running a scientific dating service! She and Research Coordinator Kathy Tonnessen match up parks needing scientific research or technical assistance with university departments and laboratories with appropriate expertise. Pei-Lin assists with proposal development, helps develop scopes of work, checks budgets, serves on review panels, and coordinates scientific peer reviews. She assists parks by ‘shepherding’ agreements through the contracting process. She also serves on MA and PhD committees at the university as an affiliate faculty member.

Decades of diverse experience in research, three Federal agencies, academia, and tribal consultation has sharpened her technical assistance skill set. Pei-Lin has wanted to be an archeologist since she was eight years old, when her parents took her to Mesa Verde NP. She spied two bone awls eroding out of a walkway while on a tour of the Cliff Palace and was thrilled with her finds as well as the kindness of the handsome ranger who praised her for turning in the artifacts instead of sneaking them out of the park! Pei-Lin decided that she had found her calling. After a college internship at the Chaco Center, she considered graphic arts, marine biology, and journalism before completing a BS in Anthropology at the University of New Mexico in her home town of Albuquerque.

Post-graduation, Pei Lin worked for the Winema NF in Oregon as an archeologist for four years, starting out as a SCEP intern before moving into a permanent position. Then adventure called and she answered, living with the hunter-gatherer Pumé Indians in Venezuela for two years with PhD candidate Russell Greaves. The job entailed ethnoarcheological research as a field assistant, assigned to following women on gathering trips and recording data on mobility and yields. Other 'duties as assigned' included eating (and enjoying) palm beetle larvae the size of Twinkies, avoiding anacondas, and delivering twin girls.



This fieldwork experience led to Pei-Lin's first publication ("Hungry Lightning: Field Notes of a Woman Anthropologist") and inspired her to head to graduate school at Southern Methodist University, where she worked with Lewis Binford. Her dissertation focused on the intensification of Archaic wild plant use in the North American prehistory and how this affects the tempo and mode of earliest agriculture. While working on her dissertation, Pei-Lin got a job with the NPS as the first-ever park archeologist at Great Smokies NP. She did Section 106 compliance work for infrastructure projects in a park with over ten million visitors per year.

Pei-Lin then took a position as the BOR Power Office Archeologist for Grand Coulee Dam and Lake Roosevelt in central Washington, and Hungry Horse Dam and Reservoir in Montana. Here, she conducted Section 110 inventory and 106 compliance for the operation of the dams and reservoirs (those who work in NRAs know what it's like to have sites change shape and size every few weeks!). The constant discovery of Native American burials exposed by reservoir erosion led to extensive tribal consultations, which, along with the completion of the doctorate in 2006, gave Pei-Lin the credentials to land an academic job with the California State University, Sacramento.

In her position as Assistant Professor, along with teaching, she served as the first Director of the NAGPRA Program. Pei-Lin loved teaching and took up the challenge of the university's NAGPRA responsibilities – which involved repatriation of thousands of burials and objects as well as consultation with dozens of bands, tribes, and Rancherias of Native Californians. When budget cuts threatened her position, Pei-Lin became intrigued when she saw that NPS was advertising a job for a CESU Cultural Specialist, a position unique to the Intermountain Region that is responsible for brokering cutting-edge science research and technical work for the Rocky Mountains network of parks.

I asked Pei Lin to describe her dream job. She said that it would include being connected with a large number of busy groups doing interesting work, and being involved in research, research dissemination, and public and traditional community outreach: a lot like her present job! She sees responsible stewardship of irreplaceable archeological resources as being at the heart of the NPS mission and, through her work, wants to make sure that archeology stays relevant to the agency, traditional stakeholders, decision makers, and the public. She currently serves on the IMR Wilderness Executive Committee and

recently conducted a webinar for the Arthur Carhart National Wilderness Training Center to bring messages about the importance of archeology to other programs of the NPS such as Wilderness Stewardship. Pei-Lin is also intrigued by the knowledge that archeological research has to offer climate change studies, and is proud to assist Glacier NP in developing and implementing the multi-year Ice Patch Archeology Project to recover and learn from perishable items from ice patches melting from climatic warming. Involving three universities and two Native American tribes, this was the only cultural resource project to be funded by the NPS Climate Change Response Program in 2010. The project won the Department of Interior's Partnerships in Conservation Award in 2012.

Pei-Lin is also concerned about another irreplaceable resource, NPS archeologists. Among all of the Federal agencies where she has worked, she says NPS archeologists excel in research and public outreach, maintain currency in the discipline, and are deeply committed to the stewardship mission. To continue to lead in cultural resource preservation, Pei-Lin feels that NPS archeologists need to actively cultivate a sense of community, recognize professional accomplishments through the John L. Cotter Award (of which she currently serves as Chair), and maintain a sense of shared purpose through teleconferences, webinars, and newsletters like the Archeology E-Gram. She says that she enjoys reading the E-gram while eating her lunch, and uses it to stay plugged in to archeologists throughout the service and become inspired by the archeological work taking place in parks all over the country. Thanks for talking to us, Pei Lin!

By Karen Mudar

New Tools For Examining, Interpreting And Managing Fort Monroe National Monument



A partnership between NPS, the Fort Monroe Authority, and the NASA Langley Research Center presents exciting new tools for examining, interpreting and managing Fort Monroe. First designated a National Historic Landmark (NHL) in 1960, Fort Monroe in Hampton, Virginia, became a National Monument in 2011 by Presidential proclamation.

English colonists established Fort Algernourne on the Fort Monroe peninsula, which was originally named "Pointe Comfort" by Captain John Smith in 1607. Since then, Fort Monroe has served as a key point in the protection of our nation. Built in the early 1800s, the fort stood as a Union stronghold in Confederate Virginia during the Civil War, becoming a refuge for freedom seekers declared "contraband." President Lincoln strategized the attack on Norfolk from the fort.

In 2005, Fort Monroe was one of the military installations on the Department of Defense's list of Base Realignment and Closure actions. A programmatic agreement was reached between the Army, the ACHP, the Virginia SHPO, the Commonwealth of Virginia, the NPS, and the Fort Monroe Authority for preservation of the fort. Compilation of historic materials for use in the protection and preservation of the NHL district after the Army's departure led to the awareness of the unique historical nature of the collection.

The NASA Langley Research Center and Fort Monroe Authority have created a GIS website that allows viewers to compare historical maps side-by-side. After the Army digitized all of Fort Monroe's archives, the Langley Research Center and Fort Monroe Authority were able to use historical maps and aerial comparisons to construct other reference tools. The maps can be used to examine coastal zone management, significant landscape and shoreline areas of the peninsula, and how providing limited access may be the best way to protect some natural and cultural areas.

The comparison tool can be accessed at: http://gis.larc.nasa.gov/fmamaps/compare_aerials/index.html.

Other GIS tools can be accessed at: <http://gis.larc.nasa.gov/fmamaps/basemap/>,
<http://gis.larc.nasa.gov/fmamaps/floodtool/index.html>,
http://gis.larc.nasa.gov/fmamaps/impervious_surface/index.html.

By Lorin Diaz

NPS Awards Grants to Support Historic Preservation through Technology

NPS Director Jarvis announced the award of \$195,000 in grants from the National Center for Preservation Technology & Training (NCPTT) to assist with projects using science and technology for historic preservation. The eight grants range from \$8,000 to \$25,000 for projects. One award involved archeological methods. The NPS Southeast Archeological Conservation Center was awarded funding for a grant to develop cone and friction cone penetrometer applications to archeological organic midden deposits.

Since 1994, NCPTT has funded science and technology projects in historic preservation. The center strives to create new technologies and training opportunities to preserve prehistoric and historic resources throughout the United States.

NPS Awards Battlefield Preservation Grants

More than \$1.1 million in NPS grants were awarded to help preserve and protect America's significant battlefields. Funds from the NPS American Battlefield Protection Program (ABPP) will support 24 projects at 38 battlefields in 15 states. Awards were given to projects entailing archeology, mapping, cultural resource survey work, documentation, planning, education and interpretation. Funded projects include:

- archeological survey covering part of the War of 1812 Battle of Baltimore in Maryland;
- a strategic landscape plan for the American Revolution Battle of Brandywine in Pennsylvania;
- boundary delineation at the Bear River battlefield in Idaho;
- GIS mapping and military terrain analysis at multiple U.S.-Dakota War battle sites in North Dakota;
- a cave survey and inventory project at the World War II Battle of Peleliu in Palau;
- re-evaluation of National Register of Historic Places nomination for the Civil War Battle of Sulphur Creek Trestle in Alabama; and
- a preservation plan and community support-building for the Civil War Battle of Greenbrier River in West Virginia.

Priority was given to those groups submitting applications for nationally significant battlefields. The majority of awards were given to battlefields listed as Priority I or II sites in the NPS *Civil War Sites Advisory Commission Report on the Nation's Civil War Battlefields* and the *Report to Congress on the Historic Preservation of Revolutionary War and War of 1812 Sites in the United States*.

Federal, state, local, and Tribal governments, nonprofit organizations, and educational institutions are eligible for the battlefield grants, awarded annually. Since 1996, more than \$14 million has been awarded by the ABPP to help preserve significant historic battlefields associated with wars on American soil.

More information is available online at <http://www.nps.gov/history/hps/abpp>.

NPS Announces NAGPRA Grants

DOI Secretary Sally Jewell and NPS Director Jonathan B. Jarvis announced nearly \$1.5 million in grants under the Native American Graves Protection and Repatriation Act (NAGPRA) to assist museums, Indian tribes, and Native Hawaiian organizations in documenting and returning human remains and cultural objects to communities of origin.

The grants support the efforts of museums, Indian tribes and Native Hawaiian organizations to further NAGPRA related projects (consultation/documentation grants), and to pay for the costs associated with the return of the human remains and objects to their native people (repatriation grants). Projects funded by the grant program include training for both museum and tribal staff on NAGPRA, digitizing collection records for consultation, and consultations regarding cultural affiliation and culturally unaffiliated individuals.

Enacted in 1990, NAGPRA requires museums and federal agencies to inventory and identify Native American human remains and cultural items in their collections and to consult with federally recognized Indian tribes, and Native Hawaiian organizations regarding the return of these objects to descendants or tribes and organizations. The Act also authorizes the Secretary of the Interior to award grants to assist in implementing provisions of the Act.

Contact: Sherry Hutt, National NAGPRA Program Manager, at 202-354-1479.

Park NAGPRA Program Offers Training

The Park NAGPRA program, in cooperation with the Pacific West region NAGPRA program, is offering training about the Native American Graves Protection and Repatriation Act (NAGPRA) at Kaloko-Honokohau NHP in Kailua-Kona, Hawaii. Park superintendents, resource managers, archeologists, curators, and other staff with NAGPRA duties are invited to attend. The training, scheduled for September 10-11, 2013, provides a comprehensive overview of NAGPRA, and prepares participants to respond to inadvertent discoveries and plan for intentional excavations as prescribed by the law. A portion of the training will focus on issues of special concern to Hawaii and the Pacific West region; an optional tour of the park is planned.

Topics include, but are not limited to, NAGPRA basics; collections (inventories and summaries); intentional excavations and inadvertent discoveries; culturally unidentifiable and unclaimed; tribal consultation; evaluating repatriation requests (claims); transferring control/custody; the Kennewick Man case; and reburial on park lands.

There are no fees or tuition for the training. To register, log in to [DOI Learn](#) and search for *NAGPRA in the Parks* (Course Code=NPS-CRS3401). The deadline for registration is August 21, 2013.

Contact: Mary S. Carroll, Park NAGPRA Program, (303) 969-2300

Symposium Offered on Battlefield Archeology: Global Perspectives in Research and Preservation

Palo Alto Battlefield NHP, the University of Nebraska Department of Anthropology, and the Brownsville Independent School District (B.I.S.D.) is offering a free symposium about current methods and research on battlefield archeology, on October 10-11, 2013. Speakers include global experts on battlefield and conflict archaeology, and will discuss new methods and techniques being used to answer questions about the history of conflict and war. Speakers include:

- Carl Carlson-Drexler, Arkansas Archaeological Survey
- John E. Cornelison, NPS Southeast Archeological Center
- Angélica María Medrano Enríquez, Universidad Autónoma de Zacatecas, Mexico
- Araceli Rivera Estrada, Instituto Nacional de Antropología e Historia, Monterrey, Mexico
- Glenn Foard, University of Huddersfield, United Kingdom
- Rolando Garza, Palo Alto Battlefield National Historical Park
- Charles Haecker, NPS Heritage Partnership Program
- Nathan Ledbetter, United States Army
- Tony Pollard, University of Glasgow, Scotland
- Daniel Sivilich, Bravo, Syracuse, New York
- Daniel Westcott, Texas State University, San Marcos
- Antonio Zavaleta, University of Texas at Brownsville

The symposium will be held October 10, 5:30 pm - 6:30 pm, and October 11, 8:30 am - 5:00 pm, at the B.I.S.D. Auditorium, Central Administration Building, 708 Palm Boulevard, Brownsville, Texas. Symposium speakers will also present their studies as posters at the 7th annual Rio Grande Delta International Archeology Fair on Saturday, October 12, 2013 in Brownsville.

Contact: Rolando Garza, Palo Alto BNHP, (956) 466-5490; Douglas Scott, University of Nebraska, (402) 429-3268; Peter Bleed, University of Nebraska, (402) 472-2349

SAA Offers Seminar on Laser Scanning

On September 17, 2013, at 11 a.m. EDT, SAA will launch its new online seminar series with a presentation by Dr. Rachel Opitz, RPA, on *Archaeological Applications of Airborne Laser Scanning*. Registration is on a first-come, first served basis and will remain open until all 25 seats are filled. The Group registration option enables one registered user to invite an unlimited number of participants to view the presentation from the same physical location. All participants will receive a certificate of completion from SAA. Individual price is \$99.00; Group price is \$135.00.

SAA online seminars are designed to provide continuing professional development opportunities to student and professional archaeologists and will be offered on a wide range of high-interest topics from September through May each year. Instructors are RPAs and top scholars in their field. All seminars are certified by RPA for Continuing Professional Education (CPE) credits.

Additional online seminars will be announced soon, including a series of *free, member-only* seminars. Check SAAweb frequently for the latest offerings.

Contact: SAA at 202-559-5709 or onlineseminars@saa.org

Projects in Parks: Archeology at the Kuka'iwa'a Landshelf, Kalaupapa National Historical Park

Kalaupapa NHP, on Molokai Island, Hawaii, is best known as the isolated peninsula where people afflicted with Hansen's Disease (leprosy) were sent between the years 1866-1965. However, the park also preserves thousands of archeological features which represent pre-leprosy settlement life. Underlying the historic settlement on the peninsula and in the adjacent valleys of the north shore, intact traditional Hawaiian dry set features indicate early life was characterized by agriculture. Recently, NPS staff conducted an archeological inventory of a remote area of the park.

To read the full story, by Mary Jane Naone, NPS archeologist, Kalaupapa NHP, go to <http://www.nps.gov/archeology/sites/npSites/kalaupapa.htm>



The Kalaupapa NHP Kuka'iwa'a landshelf is at the center of the photo.

Projects in Parks is a feature of the *Archeology E-Gram* that informs others about archeology-related projects in national parks. The full reports are available on the *Projects in Parks* web page <http://www.nps.gov/archeology/sites/npSites/index.htm> or through individual issues of the *Archeology E-Gram*.

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

Contact: Karen Mudar at dca@nps.gov to contribute news items, stories for *Projects in Parks*, and to subscribe.