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Cover: Top left, Wright Flyer III, see story p. 26; top right, Cape Hatteras lighthouse, photo by Steve Kozosky, see story p. 22; bottom left, visitors at Nisqually Entrance, Mt. Rainier National Park, c. 1915, photo taken by Lloyd Linkletter, first park concession photographer 1908-1915, see story p. 8; bottom right, El Morro, San Juan National Historic Site, photo by Steve Kozosky, see story, p.5.
Every year, the National Park Service produces research reports on its parks and their historic resources. Historic resource studies, National Register of Historic Places nominations, administrative histories, and other required documents investigate the history of the parks, describing the significance of historic buildings, structures, and landscapes, and providing historic contexts for their evaluation. Although these documents are printed and distributed, they reach a limited audience. Because of the technical nature of the text and a lack of funding for wider distribution, NPS staff, those with access to academic libraries, and peer historians are often the only readers of these reports. Recently, the Cultural Resources Stewardship division of the NPS Southeast Regional Office has sought to provide the research found in these internal government reports to a wider audience, specifically focusing on supplying more information to the region's park visitors through interpretive media such as site bulletins, brochures, posters, and web pages.

The interpretive tools focus on little-told interpretive stories in order to attract more diverse audiences to the parks. For example, national park units created to preserve significant natural resources may have little or no information on the historic buildings or other features that are also found in the park. At Cumberland Island National Seashore, visitors have access to site bulletins and exhibits about the wilderness area on the island and the endangered natural resources the park was created to protect, but find little information about the many extant cultural resources on the island. Recent research completed for a National Register of Historic Places nomination documented the history of African-American settlement on the island. Summarized and rewritten with a visitor's frame of reference in mind, the research has been used to create a site bulletin about African-American history on Cumberland Island. The bulletin, a free handout at the park visitor center, seeks to give visitors a sense of the broader history of the island and its inhabitants and the issues surrounding the preservation of the island's cultural resources.

At Timucuan Ecological and Historic Preserve, a 200-plus page Historic Resource Study was transformed into a 24-page booklet to be sold in the park's Eastern National book store. The original study, researched and written by a contracted Ph.D. historian, provided four historic contexts and evaluated the significance of the historic structures and sites in the 46,000-acre park. Park interpretive staff condensed the history of Kingsley Plantation contained in one of the contexts into an easily readable format and included historic photographs of many of the buildings as well as copies of plantation journal entries in the booklet. The use of primary research conducted by an experienced historian with a background in Florida history in the guide
book helped ensure factual content and provided visitors with new information. Interpretive staff created text and a graphic layout that would be accessible to a range of ages and reading levels. This combination of research talent and interpretive skills has been a key factor in the success of the booklet.

A third interpretive tool undertaken by the Southeast Region and currently in the final stages of development explores the Gullah culture on the Sea Islands and coastal areas of Georgia and South Carolina. Gullah communities, created by African slaves from different tribes and maintained by their descendants, have a unique culture that developed as a result of the geographic isolation of the slaves and the combination of cultural influences from their various tribal groups and their Euramerican owners. The Gullah site bulletin and other interpretive media are created by NPS historians whose specializations may lie in other fields of history. As a result, comments are solicited from outside scholars in the field in order to produce a more accurate publication. Scholars specializing in Gullah culture, Gullah preservationists, and members of Gullah communities were all contacted and asked to review the Gullah bulletin before distributing it to the park.

The majority of the interpretive products created in the Southeast Regional Office is funded by the Park Service, either from service-wide project funds or from park budgets. However, attempts to garner financial support from outside sources have shown promise. The Golden Crescent project, which sought to create a brochure, poster, video, and web site to promote visitation to parks, museums, and other historic sites along the coasts of Georgia and Florida, received initial funding support from the National Park Service even though the interpretive media described parks, historic sites, museums, and other resources managed by state and local governments, private organizations, and non-profit agencies as well as the National Park Service. Although NPS funding for the project was discontinued, the state tourism and parks departments in Georgia and Florida committed to funding reprints of the brochure to ensure continuing distribution.

The Southeast Region utilizes new technologies in its efforts to provide historical research to a wider audience. Expanded web sites for the region's parks are being developed that provide potential visitors with a virtual look at a park and its resources. The first park web page created by the Southeast Region's team built on an existing site for Castillo de San Marcos National Monument. Historical research completed for the park was converted to a graphic format in order to provide a virtual tour of the primary resource at the park, the 17th-century Spanish fortification on the Matanzas River in St. Augustine, Florida. The site is interactive, providing links to more in-depth information about the resources at the park, the history of the park and the surrounding area, park activities, and detailed images of the fort, museum exhibits, and the St. Augustine community. Other web pages under development include sites for Fort Matanzas National Monument and Chattahoochee River National Recreation Area. The expanded web pages project will provide a consistent design and layout for parks in the region.

Future plans for interpretive products include linking park web sites in specific geographic areas in order to provide visitors with travel information for specific parts of the southeast; writing site bulletins for parks such as Civil War battlefields to relate stories of commemoration, park development, women's history, or other areas of the site's history where information may be lacking; continuing to explore the possibilities for outside sources of funding; and teaming up on projects with park staff and independent scholars in order to provide more accurate and informative products.

Jill Hanson is a historian with the Southeast Regional Office, National Park Service.

Correction

In CRM Vol. 22, No. 2, “The Sewall-Belmont House National Historic Site Library, the Florence Bayard Hilles Library Opens to the Public,” was based on a history written by Karen Whitehair, the Florence Bayard Hilles Feminist Library Restoration Project Coordinator. To make an appointment to visit the library, call Courteney Holden, Deputy Director at 202-546-1210.
The defense system of Old San Juan was built by the Spaniards between the 16th and the 18th centuries to protect its most strategical location on the island of Puerto Rico, which was San Juan harbor. By right of conquest, Spain claimed the Caribbean as her exclusive territory. To safeguard her New World possessions, fortifications were built to maintain her trade monopoly against England, France, and Holland.

El Morro and El Cañuelo forts protected the city from sea attacks, whereas San Cristóbal fort protected against land approaches. The city walls provided additional protection to its population.

Because of the growth of Old San Juan's population during the late-19th century, a section of the city wall was demolished. After the Spanish-American War (1898), Puerto Rico was ceded to the United States by the Treaty of Paris signed that same year.

The old Spanish defenses, San Felipe del Morro, San Cristóbal, El Cañuelo, and the city walls were used then by the U.S. Army for military purposes. The San Military Reservation Headquarters of the U.S. Army Antilles, was later known as Fort Brooke Military Reservation, after the Commanding General John R. Brooke.

In the immediate post-Wold War II years, historians, preservationists, and groups interested in tourism joined forces to secure establishment of a San Juan National Historic Site. It was understood that the National Park Service was the most suitable agency to manage the Site to conserve unimpaired the natural and cultural resources, as well as its values for the enjoyment, education, and inspiration of this and future generations. In 1948, the Department of the Army and the Department of the Interior reached an agreement regarding future management of the area. Since the fortifications had an exceptional importance to the nation as major monuments of American history, preservation projects were started. The first significant work started when a section of the west wall (Sra. Elena and San Agustín) were rebuilt, along with some sentry boxes.

Although San Juan National Historic Site was establish by the Secretary of the Interior on February 14, 1949, it remained under the control of the Department of the Army as part of the Fort Brooke Military Reservation until September 1961. The site was comprised of Fort El Morro, Fort San Cristóbal, the city walls, Fort El Cañuelo, and Casa Blanca.

Research and collection of historical data were started immediately in order to make information available to the public by means of exhibits, lectures, markers, and publication of folders. The first tour started at El Morro on January 18, 1950, led by park guide Julio Marrero Nuñez who in 1962 became the first Puerto Rican superintendent.

In September 13, 1961, the U.S. Army determined that the forts, the city walls, and El Cañuelo were no longer essential to the military establishment of Fort Brooke, and that consequently the historic structures, with adjacent lands could be transferred to the jurisdiction of the National Park Service. A total area of 36 acres was involved. On El Morro grounds, areas such as the baseball field, golf course, swimming pool, and housing facilities were dismantled.
Visitor services expanded, Fort San Cristóbal was opened to the public in 1961. The National Park Service headquarters also moved to Fort San Cristóbal.

A cooperative agreement was signed between the Department of the Interior and the Commonwealth of Puerto Rico in 1976. It defines the areas of jurisdiction and responsibility. This agreement establishes a good-neighbor policy whereby the Park Service and the Commonwealth consult with each other as required to ensure the "smooth management" of the historic site.

During the 1960s and 1970s, research programs were started to interpret and preserve the historic structures. During the 1980s, a period of in-depth planning took place. In 1983, San Juan National Historic Site, including La Fortaleza, was declared a World Heritage Site because of its exceptional universal cultural value.

A series of guidelines for the park was created to assess management, development, and use of San Juan National Historic Site. Short- and long-term goals were established in documents such as the General Management Plan, and the Historic Structure Report to address current problems and achieve identified management objectives.

As part of the preservation projects, the Army Corp of Engineers once again joined efforts with the National Park Service in planning and completing a water breaker to protect the historic structures of El Morro, and its adjacent walls. In order to bring back the original landscape (esplanade) of San Felipe del Morro Fort, the main road, parking area, and trees were removed.

The visitor services facilities and programs have grown according to its demands. Around two million visitors came to our forts and participated in the various interpretive programs developed, such as guided tours, audiovisual presentations in English and Spanish, and self guided audio cassette tours. To further interpret the history of the sites, waysides were designed and placed within the park. New exhibits were added to the already existing museum at El Morro.

As a contribution to the interpretive program, the Municipality of San Juan worked together with the park in establishing a living history program. Men dressed as Spanish colonial soldiers marched along the streets of Old San Juan, ending with a recreation of the change of guard at San Cristóbal Fort.

The park that once started with a small staff, has grown to allow a diverse group of professionals which contribute with their knowledge and expertise. San Juan National Historic Site staff consists of the following divisions: Management, Administration, Interpretation, Visitor Protection (law enforcement), Resource Management, Maintenance, and the latest established Fee Collection, and the Caribbean Spanish Colonial Research Center and Military Archives.

The 1990s has been characterized by the implementation of what has been recommended by the research done through the years. Some of the preservation projects that were developed included the Santa Elena Powder Magazine and El Morro lighthouse restoration. As part of a five-year research program, historic walls underwent preservation work.

Summer provided the time to involve the community and the local artists in a "story-telling" program. San Cristóbal Fort main plaza came alive with the performance of well known stories and legends.

The casemates have been used to accommodate new exhibits that commemorate significant historical events. In 1997 a display of information and graphics on the 1797 British attack was developed.

In preparation to receive the 21st century, the park has been involved in the design of new museum exhibits and visitor centers for both forts. To meet the overall objectives, the following themes will focus on the strategic location of Puerto Rico, its place in the Spanish Colonial Empire in the Caribbean, and the world international conflicts between the Spanish, Dutch,
English, French, and Americans for control of the Caribbean: The technology of fortifications emphasizing the European military engineers who designed the forts with specific defensive goals; the United States in Puerto Rico, and the role of the forts in the Spanish-American War, World War I and II; and the Puerto Rican Heritage (Taíno, black, and European).

Educational programs development are ongoing projects that will allow students to learn about our history. “Parks as Classrooms” and “Wonders of the World” are dedicated to move the history classroom to the forts as a first-hand approach in the learning process. While “Parks as Classrooms” focuses on the evolution of the forts, “Wonders of the World” emphasizes the uniqueness of the forts being a World Heritage Site.

In keeping up with the new technology, San Juan National Historic Site joined the National Park Service format by creating its own web site. You may access it using the following address: <www.nps.gov/saju/index 2.html>.

The interpretive program will continue its expansion providing a variety of services. While research will be an on-going process, it will allow for historical projects like “Voices of Fort Brooke Oral History,” and publications.

The Caribbean Spanish Colonial Research Center and Military Archives will be a tool for in-depth investigations. Its materials will be catalogued using the latest technology to allow its researchers a quick access to their information needs.

Protection of our resources would not be possible without the efforts and involvement of our skilled staff. It is our commitment to continue preserving our unique legacy for future generations.

Milagros Flores is the historian for the San Juan National Historic Site and Director of the Caribbean Spanish Colonial Research Center and Military Archives.

Electronic Rehab

Want to take a “web class” that’s both informative and fun? ELECTRONIC REHAB is now online . . . and interactive! Go to <www2.cr.nps.gov/e-rehab>.

Visit ELECTRONIC REHAB the National Park Service’s very first historic preservation distance learning program funded, in part, by the NPS Cultural Resource Training Initiative, and cooperatively developed by Heritage Preservation Services, National Center for Cultural Resource Stewardship and Partnership Programs, Washington, DC, in partnership with Goucher College’s Center for Graduate and Continuing Studies, Baltimore, MD.

ELECTRONIC REHAB introduces the Secretary of the Interior’s Standards for Rehabilitation to anyone who is thinking about rehabilitating a historic building—property owners, architects, engineers, contractors, developers, members of historic district commissions, and maintenance personnel and other caretakers of historic buildings.

Learn what the Standards are, who uses them, how they’re applied, what to do before you start work, and the DOs and DON’Ts of rehabilitation. Each Standard is explained with illustrated examples of project work. To test your understanding of the Standards, ELECTRONIC REHAB features a follow-up quiz on the rehabilitation of two historic buildings—one commercial and one residential. You make work decisions using the Standards and get immediate feedback on how you did!
On a clear day the phrase, "the mountain is out" can be heard throughout Washington's Puget Sound. It can mean only one thing. Mount Rainier is visible today. For days, sometimes even weeks in the gray winter, Mount Rainier will remain hidden. Then suddenly, the mountain appears from behind the clouds. Mount Rainier is an icon to the people of the Pacific Northwest and a reminder of how much they love living in this special region. In 1999, we celebrate Mount Rainier's centennial as our nation's fifth national park. The park's centennial provides not only an opportunity to enhance the public's sense of resource stewardship but also a chance to focus public attention on the park's rich cultural resources.

With the upcoming centennial in mind, a team of NPS curators came to Mount Rainier National Park in 1993 to survey the archives. It was obvious the park had a wonderful collection including textual materials, maps, architectural plans, lantern slides and photographs. Unfortunately, the collections were scattered throughout the park and access to the materials was difficult. If the park's cultural resources were going to be celebrated in 1999, the archives had to be identified, processed and made available to both the park staff and the public. The park looked to nearby Western Washington University's Graduate Program in Archives and Records Management for assistance and the Mount Rainier Archives Project was born. The project is a result of a cooperative agreement begun in 1995 between the NPS and Western with technical support provided by the National Archives and Records Administration (NARA)—Alaska Pacific Region (Seattle).

Phase one of the project was to identify materials of historic value for processing and microfilming. Over the years, the office of the superintendent maintained a central files in the administration building. These records were created by all park divisions including Administration, Education, Natural and Cultural Resources, Maintenance, Planning and Professional Services and Visitor Protection and Resource Protection. After consultation with NARA and park staff, a decision was made to include some files, normally scheduled for disposal. The most significant addition in this category was the historic concessions records.

While some materials were not stored in ideal circumstances, including a bat infested attic and a leaky basement, overall the records were in fairly good physical condition. The biggest obstacle was the loss of provenance and original order for a large portion of the records. While it was clear the majority of records were created by park staff, additional information about the origin of the records was often difficult to establish. The materials were arranged after the fact using the current NPS filing system, even though a majority of the records was created earlier than the start of the system. The result was the loss of provenance. Some records transferred to the project did have clear provenance including the Superintendent's Annual Reports and Summit Registers. Other collections were artificially created by park staff including the history collection that contained materials collected by park employees during research projects on park history. In each case, the project did not attempt to recreate the original order but maintained the existing order. A history of each collection was placed in the scope and content notes of the finding aid.

Another challenge during the early months of the project was park staff anxiety about removing materials from park offices into a central, archival repository. Would the materials still be accessible to park staff? Over time the park staff came to trust the project and realized that once the material was processed and microfilmed, everyone would have increased access to the archives. All the permanent textual collections were processed, stored in acid free folders and containers, and microfilmed by NARA. A copy of the microfiche was placed in the park's library.
A finding aid, *Records of Mount Rainier National Park*, was prepared by project archivists, Nancy M. Shader and Reid Coen and published by the Government Printing Office (GPO) in 1998. The 117-page publication includes a brief administrative history, a folder level description of the materials in the archives, and a microfiche index. The GPO distributed one copy of the finding aid to every repository library in the United States. Soon the entire text of the finding aid will be placed on the park's web site.

Phase two of the Mount Rainier Archives Project addressed the park's substantial historical image collection containing over 14,000 photographs, negatives, and lantern slides. Since a majority of the images was already identified by the photographers, or other park staff, an item level inventory was created for each collection. The information was stored in a Microsoft Access database, which contained several fields including description, date, photographer, and subject. The database was developed prior to introduction of the upgraded NPS Automated National Catalog System (ANCS+) which has an image component. Knowing a database would make answering reference and media requests for historical images more efficient, the Access database seemed the best solution at the project's outset. Future plans include downloading digital images for a portion of the image collections and cataloging each archives and image record group into ANCS+.

Gaining physical and intellectual control over the archives led to an increased use of the records of Mount Rainier National Park. With each reference request (from the park staff or the public) the project was able to provide a variety of materials. Extensive use of the Mount Rainier archives was made for the following centennial publications and projects:

- Archives and artifacts from the museum collection figured prominently in the Washington State History Museum (Tacoma) exhibit, “Sunrise to Paradise: The Story of Mount Rainier National Park” and its companion book by Ruth Kirk
- Archival records and historic image collections were used in the official centennial book, *Washington's Mount Rainier National Park: A Centennial Celebration* by Tim McNulty and Pat O'Hara
- Author Bruce Barcott used quotes from the park's summit registers in his book *Measure of a Mountain*.
- Historic images and motion picture film were integrated into the one-hour documentary, “Rainier: The Mountain,” by KCTS (PBS-Seattle)
- Architectural plans and historic images were consulted in preparation of *100 Years at Longmire Village*, by Sarah Allaback, Victoria Jacobson, and Ronald Warfield which focused on a portion of the park's National Historic Landmark District
- Archival records and historic images were used during the restoration of the White River Patrol Cabin and for preparation of an upcoming, permanent NPS exhibit at the structure celebrating the history of the park's trail system

The Mount Rainier Archives Project is now in its third and final phase. During the next few months the project archivist will answer numerous reference requests and conduct outreach to promote both the archives and the Mount Rainier centennial. The project archivist will also work closely with the park and NARA to ensure the continued growth and management of the archives. Only through consistent records management will materials created today be available for researchers into the 21st century and beyond.

Nancy M. Shader, is the former Mount Rainier project archivist and co-author of the *Records of Mount Rainier National Park*,

Alison Costanza, is the current Mount Rainier project archivist, Western Washington University.

Deborah Osterberg is the museum curator at Mount Rainier National Park.
The fact that 38 confirmed tornadoes in one evening killed only three people is widely considered to be a miracle (not to mention a ringing endorsement of the hazardous weather warning system and the public/private partnership that has made it so effective). Yet there remains disagreement on the coordination of relief and recovery resources for owners of affected historic properties, of which there were almost 500 statewide, and in spite of important successes. Largely through efforts that included damage assessment, dissemination of useful public information, and coordination between public and private partners—all of whom were operating with the best of intentions—valuable lessons were learned about what we did well, what we did not, and how to react more effectively next time.

Though the tornadoes—and accompanying high winds—struck various parts of the state on January 21, 1999, the damage to historic structures was concentrated in three communities: Little Rock in central Arkansas, and the communities of Beebe and McRae, located approximately 35 miles northeast of the capital city. The response of the Arkansas Historic Preservation Program (the State Historic Preservation Office) was immediate. Two National Register-listed districts—the MacArthur Park Historic District and the Governor’s Mansion Historic District—were impacted, in addition to several other individually listed properties. The morning after the tornadoes struck, several teams of historians traveled through the hardest-hit areas of Little Rock, photo-documenting the damage and filling out assessment forms; ultimately, nearly 500 historic properties were visited over a three-day period. The State Historic Preservation Officer initiated contact with city, state, and federal officials, including the governor’s office, to which daily progress reports were provided. The SHPO served as the statewide point of contact for all federal assistance for historic property owners, and as such developed a particularly close relationship with both the Federal Emergency Management Administration (FEMA) and the Small Business Administration (SBA).

The primary goal of the damage assessment documentation—and the speed with which it was executed—was to provide the earliest and most accurate damage assessments to those federal agencies to whom homeowners would apply for assistance and from whom funds would be available for repair/rehabilitation/restoration work. This information would give these agencies the most accurate background on what was damaged and how badly so that their representatives could be most helpful to property owners while at the same time recognizing their responsibilities under Section 106 of the National Historic Preservation Act. Yet the long-term goal was to prevent the type of wholesale demolition that frequently occurs after such a disaster, often without any understanding of the true extent of the damage or the structural condition of the property in question. Toward this end—and though it was under no legal mandate to do so—it was also the SHPO’s intent to share this same information with local fire, safety, and code enforcement officials, primarily to make them cognizant of the alternatives to demolition and hopefully to encourage them to seek those options first.

With these goals in mind, the SHPO’s damage assessment efforts were largely successful. In fact, the information provided to the federal agencies prompted a FEMA representative to compliment the SHPO on its response, to inquire as to how we were able to react as swiftly as we did, and to comment that Arkansas could serve as an example to other states in this regard (interestingly, it was also discovered through this process that the SBA had not been submitting routine Section 106 documentation to the...
SHPO, and this discovery resulted in the correction of the situation. The sharing of this information with local officials also bore fruit, as city agencies in particular became aware of the SHPO's concerns about unnecessary demolitions and this caused its officials to recognize the legal responsibilities it had in regarding the MacArthur Park Historic District, which is protected by a local preservation ordinance. However, this continuous contact also served to remind the city of how unpopular any such rash action would be, regardless of how well intentioned.

Less successful, however, was the coordination and communication between public officials and certain non-government entities that nevertheless had a substantial interest in the historic fabric of downtown Little Rock. One local private non-profit group that promotes historic preservation in central Arkansas found itself attempting to assist historic property owners regarding concerns that fell both inside and outside the formal, regulatory purview of the SHPO or city agencies; in particular, the issues of damaged historic properties that have simply been abandoned by an owner after reaching an acceptable insurance settlement, the establishment of a supervised salvage center, and provision of technical advice to property owners. Furthermore, it fell to this organization to field a number of questions regarding private insurance issues and to make the contact on behalf of property owners with state insurance officials. Representatives of this organization felt that the efforts of the public historic preservation agencies at all levels were not addressing the day-to-day, pressing concerns of these property owners and that this private non-profit entity was not sufficiently included in the design of these efforts. Though the non-profit was included in all planning meetings, there is no question that a communication problem existed, and that it resulted in hard feelings between the regulatory organizations and the non-profit group.

Several meetings ensued after the initial disaster response, and the one solution on which all could agree was the need for a disaster response plan that would be drafted with the participation of public and private partners. It was even suggested by the SHPO that Certified Local Government funds could be earmarked to hire a consultant to draft such a plan; furthermore, it was noted that it could well be advantageous to hire an independent party not affiliated with any interested organization in order to produce the most comprehensive and most useful document. Such a disaster plan would specify such things as distinct organizational responsibilities, chain of command, lines of communication, recovery priorities, and recommended response techniques for historic properties, including sites. Ideally, it would also be endorsed by the governor and the state legislature, and distributed to preservation partners at all levels, public and private, with the understanding that this is the SHPO's official disaster recovery plan for historic properties.

Every region of the country has its natural disaster concerns, whether they be flooding, fire, earthquakes, hurricanes, or tornadoes, and thus every state, territory and possession would be well-advised to develop and adopt such a plan for the treatment of damaged historic properties, if this has not already been done. In Arkansas, with two tornado strikes within two years (on March 1, 1997, tornadoes struck the city of Arkadelphia and several small communities near Little Rock), frequent flooding problems with the state's many rivers, and the constant (if low level) threat of an earthquake from the New Madrid fault in the northeastern part of the state, it is long overdue.

Ken Story is Preservation Outreach Coordinator for the Arkansas Historic Preservation Program.

For Further Reading...

Disaster Management Programs for Historic Sites presents the proceedings of the National Park Service symposium at the University of California, Berkeley, funded by the fiscal year 1995 Cultural Resources Training Initiative. Copies may be obtained from David W. Look, AIA, Team Leader, Cultural Resources Team, Pacific Great Basin Support Office, at 415-427-1401 or email <david_w_look@nps.gov>.

Also, watch for the future theme issue of CRM on cultural resources and disasters.
Cultural resources are showcased in an innovative public art program at Grant-Kohrs Ranch National Historic Site in Deer Lodge, Montana. Founded in 1860 by pioneer stockgrower John Grant, the ranch became headquarters of legendary 19th-century cattlemen Conrad Kohrs. Its intact cultural landscape and vernacular architecture are significant to the nation’s frontier cattle era, and are now becoming a mecca for some of the Northwest’s finest artists.

The Frontier Montana Gathering of Artists coincides with the August 25 founding anniversaries of the National Park Service (1916) and Grant-Kohrs Ranch NHS (1972). A select group of established and up-and-coming fine arts professionals spend three days at the ranch sketching, painting, and drawing. Upon return to his or her studio, each produces artwork—in oils, watercolors, pastels, or pen and ink—which the site collectively exhibits at venues throughout western Montana.

The Gathering’s purpose is two-fold: to acknowledge and sustain the historic association between artists and America’s national parks, dating to Thomas Moran and Albert Bierstadt; and to inspire public appreciation for the nation’s frontier cattle era and NPS preservation of Grant-Kohrs Ranch. While the early national park artists depicted the natural grandeur of Yellowstone, Yosemite, and Glacier, a different artistic bent became associated with Grant-Kohrs Ranch. When Conrad Kohrs added the DHS Ranch to his sprawling empire in 1883, he inherited an eastern Montana cowboy better remembered for his brush than his lasso: Charles M. Russell.

“I see myself as Kohrs’s second artist in residence, after Charlie Russell,” Bozeman watercolor artist Bob Barkell wryly observes. “Grant-Kohrs Ranch is a marvelous place for an artist, an artist’s heaven.”

Barkell first visited Grant-Kohrs Ranch following a chance invitation from its chief of interpretation at the 1998 C.M. Russell Art Exhibition in Great Falls. Previously unfamiliar with the site, this fifth-generation Montanan was awed by its log barns, cowboy bunkhouse, and Hereford cattle grazing against a backdrop of snowcapped mountains. As a summer volunteer Barkell painted vignettes of the ranch’s historic scene and traditional ranch life, which he enthusiastically interpreted to visitors clustered around his easel.

Barkell’s dream of a forum where talented artists could paint and learn from each other became possible under the mantle of NPS sponsorship. Supported by Grant-Kohrs Ranch NHS, the Glacier Natural History Association, and area businesses, Gathering participants encamped adjacent to the ranch, all meals furnished. A dozen gathered at Grant-Kohrs Ranch in August 1998; 30 will convene here in August 1999. A juried national invitational is envisioned for 2000.

“The Frontier Montana Gathering of Artists benefits everyone,” says superintendent Tony Schetzls. “Artists flex their talents and talk art around the evening campfire; the public learns about art and the Service’s preservation of Grant-Kohrs Ranch through the travelling exhibit; even our staff gains insight as artists depict the ranch in new and compelling ways.”

Schetzls points out two unforeseen advantages of the program. The first was Barkell’s decision, after his first summer at Grant-Kohrs Ranch, to relocate his studio and gallery from Bozeman to Deer Lodge, providing a basis for cultural enrichment of this small ranching community. The second benefit is the visual record artists produce of the ongoing preservation of Grant-Kohrs Ranch—including before and after images of the reroofing of the 1862-1890 John Grant/Conrad Kohrs ranch house. While the site maintains photo files documenting cultural resource preservation, Schetzls says, works of art themselves become artifacts that continue to capture Grant-Kohrs Ranch for the enjoyment and inspiration of future audiences.

Scott Eckberg is Chief of Interpretation at Grant-Kohrs Ranch NHS.
The National Maritime Heritage Grants Program

The United States is a nation with a rich maritime history, and it is desirable to foster in the American public a greater awareness and appreciation of the role of maritime endeavors in our Nation's history and culture.

So it is declared among the findings of the National Maritime Heritage Act of 1994 (P.L. 103-451). These findings further observe that historic maritime resources are being lost with increasing frequency and current public and private efforts are unable to ensure their preservation for future generations. The suggested remedy is a national maritime heritage policy providing leadership and financial support. This policy is realized in the authorization of the National Maritime Heritage Grants Program.

Conceived as a partnership between state and local governments and private nonprofit organizations, the grants program is administered by the National Park Service and State Historic Preservation Offices. The National Maritime Heritage Grants Advisory Committee, whose 21 members are from the private and public sectors, provides funding recommendations and suggests priorities for achieving the national maritime heritage policy. Revenues for the program come from 25 percent of the proceeds from scrapped vessels of the National Defense Reserve Fleet, administered by the Maritime Administration.

The grants program is national in scope, features a competitive selection process, and requires a one-to-one match of federal to nonfederal resources. Eligible applicants include state and local governments and private nonprofit organizations. In general, the program supports maritime heritage education and preservation projects designed to reach a broad audience and enhance public understanding of America's maritime past. Educational projects focus on conveying information about this maritime legacy through curatorial, instructional, and interpretive activities. Preservation projects encompass all facets of preservation planning and treatment for historic maritime properties and archeological sites.

The first round of maritime grants commenced in February 1998. In all, 342 proposals requesting approximately $10.3 million were received. About $650,000 was available for awards. Proposals were evaluated by State Historic Preservation Offices and forwarded with comments to the National Maritime Heritage Grants Advisory Committee. Final review and funding recommendations were made by the committee.

In evaluating proposals, the committee assessed the quality of the proposal and its potential public benefit. They also considered the significance of the maritime resource and if it was at all threatened. The need of the organization and the capacity of an applicant to complete the project in a timely, professional, and cost-effective manner were also important factors in deciding whether or not to recommend a project for funding. As well, the committee worked to ensure an equitable distribution of awards among small and large organizations, resource types, and education and preservation project categories. Overall, the selection process for the first maritime grants was very competitive, final funding decisions quite difficult, and many worthy projects simply could not be supported.

However, the projects receiving awards represent a group of maritime resources that are unique on a local level, important within a national context, and have the potential for broad public impact. Included are preservation efforts involving large vessels and small craft; lighthouses and lifesaving stations; a maritime warehouse, store, and observatory; as well as canal locks. Several proposals to make maritime manuscript and photographic collections electronically accessible were also funded. The unique heritage of rivers and inland lakes will be conveyed through the support of projects involving documentation, conservation, and interpretation of associated watercraft. Underwater archeology efforts receiving grants include survey, artifact conservation and interpretation, and public outreach and education pro-

For a list of the 1998 maritime heritage grant awards, see this issue of CRM Online.
grams. As well, organizations involved in developing maritime heritage tourism and maritime heritage curriculums are represented among the grant recipients.

In all, the maritime grants program is supporting 39 projects totaling $652,616. Three nonprofit organizations specifically named in the program's legislation each received a grant. The remaining 36 grants were awarded to 20 State Historic Preservation Offices. These projects will be carried out as subgrants through those offices. In formulating the final amounts for each award, partial funding was recommended for 36 of the 39 proposals in order to support as many projects as possible. Thus, while most of the applicants did not receive the full amount requested, partial funding ensured that more worthy projects could receive at least some level of federal support.

The maritime heritage grants program has been met with great enthusiasm. The number of proposals submitted and the amounts of funding requested represent not only the tremendous efforts currently being made in the maritime heritage field but also the tremendous need for continued federal assistance. The projects receiving awards under this first round are, however, only a fraction of the maritime resources worthy of preserving and interpreting. Many organizations are looking to this program for continued support.

Unfortunately, at this time there is no funding available for a second round of grants in 1999. It is also uncertain when, and if, enough funds will be available for future grant rounds. This is due to the recent rise in environmental concerns associated with the vessel scrapping process. Because of these issues, current practices are now being re-evaluated to determine more appropriate procedures for avoiding environmental contamination during scrapping. However, an adequate solution has yet to be reached. As a result, there have been delays in the sale and scrapping of vessels as well as significant losses in the revenues returned. This translates as a dramatic decline in the funds available for the maritime heritage grants program.

Preserving significant historic maritime resources through the disposal of obsolete government vessels is a seemingly resourceful use of public funds. Unfortunately, the environmental concerns linked to this funding source were not anticipated when the program's legislation was drafted. If maritime heritage grants are to continue, a satisfactory solution to these issues must be achieved or alternative sources of funding must be found.

The United States is a nation with a rich maritime history, and it is desirable to foster an environment in which resources that exemplify this legacy may be preserved for future generations. Such is the thinking behind the National Maritime Heritage Act and the National Maritime Heritage Grants Program. Through the cooperative efforts of federal, state, and local governments and private non-profit organizations there is now in place a program for distributing grant awards to a maritime community very much in need of such assistance. It would be a shame if unforeseen financial difficulties prevented this program from continuing as a long-term, reliable resource for preserving the maritime heritage of the United States.

Hallie Brooker is an employee of the National Conference of State Historic Preservation Officers (NCSHPO) working with the National Maritime Initiative in the NPS and is the grants program coordinator.

Information about the grants program is available on the National Maritime Initiative's web site at <http://www.cr.nps.gov/maritime/grants.htm>. Contacts for the program are Hallie Brooker and Kevin Foster, Chief, National Maritime Initiative, National Park Service (2280), 1849 C Street NW, Room NC400, Washington, DC 20240.


The National Maritime Alliance, a private nonprofit organization, coordinated the national effort that supported passage of the National Maritime Heritage Act. Information about the Alliance, its current activities and its role as an advocate of the Act may be obtained by contacting Dr. Timothy J. Runyan <runyant@mail.ecu.edu>, Eller House, Program in Maritime Studies, East Carolina University, Greenville, NC 27858.
Saving The Star-Spangled Banner
A NPS-Smithsonian Partnership

The highest project for the millennium at the Smithsonian is to save our Star-Spangled Banner by 2001—the very flag that flew over Fort McHenry and inspired Francis Scott Key to write the poem that became our National Anthem.

President William J. Clinton
August 15, 1997

In 1996, Ronald Becker, Associate Director for Capital Programs of the Smithsonian's National Museum of American History and several staff members visited Fort McHenry National Monument and Historic Shrine. During their visit he requested assistance from the park with their renewed quest for information about the history of America's most famous flag—The Star-Spangled Banner that inspired our national anthem. Since that time, we have participated as consulting historian and curator with their team.

The Smithsonian has embarked on a most ambitious preservation project to conserve the nation's flag. Our literary search for documents, persons, and events associated with the flag provides a new understanding of the icon that symbolizes the American landscape and cultural identity. This research will also assist the conservators with their work.

Conservator Suzanne Thomassen-Krauss were asked to lead the team of specialists. The following are brief excerpts from some of our findings.

The flag was made in August 1813 at the request of Major George Armistead, commander of Fort McHenry. He received the flag from a local Baltimore seamstress, Mary Pickersgill, a Baltimore “maker of ship pennants.” The flag measured 30’ x 42’ and was made of “English wool bunting.” A year later, this enormous flag inspired the writing of “The Star-Spangled Banner” following a British 24-hour naval bombardment.

Following Armistead’s death in 1818, the flag remained in the care of his widow, Louisa Armistead, and her descendents until 1912.

The flag had begun its journey to become an inspirational icon, not only to the old defenders of Fort McHenry, but to thousands of citizens and soldiers alike. Therefore, the story of the current preservation began to unfold.

In the century following the bombardment, the flag was exposed to light and weather during various commemoration and civic patriotic occasions. For example, on October 7, 1824 the flag was hoisted for the last time at Fort McHenry to welcome the French General Marque de Lafayette. Beneath the flag, another American symbol was also displayed, George Washington’s campaign tent. The following is a brief review of the flag’s journey after that momentous occasion.

- 1839—The flag is displayed during the 25th anniversary of the Battle of North Point.
- 1841—Armistead’s son delivers speech in Richmond, Virginia, to receive a sword on his father’s behalf while the flag is hung behind the podium.
- 1844—Armistead’s son delivers speech in Richmond, Virginia, to receive a sword on his father’s behalf while the flag is hung behind the podium.
- 1861—Young Men’s Whig National Convention of Ratification held on May 2, 1844—The flag is hung from Armistead’s residence in Baltimore.
- 1861—The flag is described as “faded and worn by exposures to storms and missiles. It had eleven holes in it, made by shot of the British bombardment.” The family repeatedly
In 1914, Amelia Fowler, the foremost flag restorer of the day, used a process that she patented and covered the flag with delicate stitches in order to attach the linen backing to the wool bunting.

* 1861—Widow of George Armistead dies and bequeaths the flag to her daughter, Georgianna Armistead Appleton, who cared for it through the Civil War period with her husband, a native of Boston.
* 1873—While on loan to Admiral George Preble, a canvas backing is sewed to the flag to support it while being displayed and photographed at the Boston Navy Yard.
* On Flag Day, 1877, a family member gives a presentation at the Old South Meeting House in Boston, Massachusetts. The flag had been considerably diminished to a size of 30' by 34', which is its present dimensions.
* 1880—The flag returns to Baltimore for the last time and displayed during the 150th anniversary celebration of the founding of the city.
* 1907—Eben Appleton loans the flag to the Smithsonian but then completes the actual permanent gift in 1912.

Exhaustive research efforts have yet to resolve when the flag was actually presented to the Armistead family. While newspapers record the details of George Armistead's funeral there is no mention that the flag was used during that event. Furthermore, it is equally surprising that there is no clear indication that the flag was used during the funeral ceremonies for Francis Scott Key in 1843.

By the turn of the 20th century, the family began to make inquiries for the permanent preservation and display of the flag. In 1912, it came to the final destination of the journey when it was given to the Smithsonian Institution where it has remained.

In 1914, the Smithsonian conducted the first restoration/preservation of the flag and documented the flag's condition as the nation prepared for the National Star-Spangled Banner Centennial Celebration. The first canvas backing was removed and a new linen material was carefully sewn to the flag to give it support. After treatment, it was placed on display in the Arts and Industry Building, until 1964 when it was put on display at the new National Museum of American History.

In 1993, Smithsonian textile conservators were concerned by the flag's delicate condition, due to constant exposure to light and air pollutants. In order to understand the current condition of the flag, it was important to determine when and how often the flag had been exposed to light and weather, while it was at the garrison and later during its historic passage through time.

On the evening of December 1, 1998, the great flag was lowered from its 35-year-old exhibit space. It is now in a newly constructed conservation laboratory where visitors may view the flag today. Here conservators began the slow and careful three-year preservation treatment of the delicate woolen fibers of the bright stars and broad stripes. Wool experts from New Zealand have joined the team to further examine and analyze fibers of the flag to determine how best to preserve the flag.

That same week, the History Channel, aired a one-hour documentary entitled, "Save Our History: the Star-Spangled Banner Project" in cooperation with the Smithsonian and the National Park Service staff at Fort McHenry. A teacher's curriculum manual was also prepared through a joint effort by the museum education department and the park staff in collaboration with the History Channel. The video and the manual have been distributed to over 20,000 teachers across the country. In addition, hands-on activities will be offered at the museum daily explaining this nationally significant preservation treatment project.

In the 185 years since the great flag was hoisted "by the dawn's early light" to give birth to our national anthem, this almost legendary American story remains one of the most revered in our nation's history.

Historian Scott S. Sheads and museum specialist Anna R. Von Lunz both serve at Fort McHenry National Monument and Historic Shrine in Baltimore.

For more information, visit the Smithsonian Institution's Star Spangled Banner web site: <www.si.edu/nmah>.
The Pacific Northwest now has an Archaeological Resources Protection Act (ARPA) training course taught from a tribal perspective, which complements an existing ARPA training program taught by the Federal Law Enforcement Training Center (FLETC). The course was developed by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) in cooperation with other local tribes and agencies. It is taught each October and by special arrangement.

The training is held in the heart of Indian country, in Richland, Washington, in order to involve local tribal elders and to take advantage of the U.S. Department of Energy's HAMMER Center. The HAMMER Cultural Resources Test-Bed and Training Center is a 7-acre surface and subsurface test-bed designed to provide a training ground for non-destructive archeological methods that can be used to teach others about site protection, and to encourage and enhance non-invasive archeological methods, namely geophysical techniques.

The first annual HAMMER Archaeological Resources Protection (ARPA) Training for Law Enforcement was held October 29 and 30, 1998. The two days included a series of classroom presentations and an in-field ARPA crime scene investigation at the HAMMER Test-Bed. The 28 people taking the class included law enforcement officials, park rangers, county coroners, and tribal cultural resource technicians from various locations in Washington and Oregon. The Washington State Criminal Justice Training Commission approved 16 hours training credit for law enforcement officers taking the class.

The course is unique in that it is taught from a tribal perspective. We developed and organized the course after we completed a five-day ARPA training conducted by FLETC. The FLETC class, while excellent, was not designed to provide a tribal perspective on the impact of looting.

A tribal perspective is important because disturbing cultural resources is not a victimless crime—such destruction has many social impacts on the lifestyles of Indian people. By providing a forum for Native Americans to speak about the impact of looting, students begin to understand and appreciate the seriousness of the crime. Other in-class training includes lectures and discussion on the laws, education efforts, and archeology.

Another unique quality of the class is its focus on crime scene investigations and techniques for proper prosecution, conviction, and restoration. The crime scene consists of a permanent simulated archeological site constructed specifically for the ARPA training. The site included buried features such as an earth oven used to heat treat lithic materials, a fire pit, a house pit with several caches, a human burial, and a multi-component archeological site. Out of respect for real archeological sites, all the "artifacts" and features for the simulated sites were made by Umatilla tribal members. For example, stone tools were replicated in 1998, and ash and firecracked rock were brought in from tribal sweat lodges to simulate earth ovens. After the features were constructed and buried, the site was left to rest for a few days, encountering a wind storm and thunderstorm. A day before the class, we intentionally looted the site with shovels and screens. The looting activity was stabilized and looter's evidence was planted for the site investigation.

The students were divided into five teams, each assigned to one of the features. Each team investigated the looted feature, looking for the types of evidence discussed during classroom lectures. In addition, actors playing looters were detained on-site by a law enforcement officer and were available for interviews.

The teams then returned to the classroom at the main HAMMER training facility and began presenting their cases to a county deputy prosecuting attorney, John Jensen of Benton County, and to a U. S. assistant prosecuting attorney, Timothy Simmons, of Portland. The prosecutors then decided whether or not they would take the case, based upon the information provided by the teams. The pitfalls and successes of each team were discussed.
In all, 15 instructors from across the Pacific Northwest contributed to the training. Whether Native American or not, all instructors shared the vision that to be effective in cultural resource management, Native Americans must take an active leadership role and be involved in all phases of the work. In the recent Plymouth Island ARPA convention in Washington, for example, a prosecutor stated, "If the tribes had not been involved in this case, we wouldn't have been successful in the prosecution."

The ARPA training at HAMMER represents one more step initiated by tribes in the Mid-Columbia to protect cultural resources. For decades, tribes such as the Umatilla, Nez Perce, Wanapum, Yakama, and Warm Springs have been crying out to local, state, and federal agencies to protect burial sites, archeological sites, and traditional use areas. When protection efforts failed to meet expectations, tribes took matters into their own hands. Several tribes started cultural resource programs during the 1980s to protect resources important to them.

The Umatilla, for example, began its Cultural Resources Protection Program in 1987 and began a vigorous campaign to improve the way CRM was conducted throughout its ceded lands. One aspect of this campaign was participation in regional and national archeological conferences, calling on the CRM profession to expand its definitions to include all tribal cultural resources, improve its methods, and involve tribes. The CTUIR were equally aggressive in calling on agencies to live up to their responsibilities in surveying lands, reporting ARPA violations, and increasing patrols to stop future ARPA violations. (A volume of the papers presented by the CTUIR from 1988 to 1998 with over 40 published papers is currently in publication and will be available in fall 1999.)

In the early 1990s, the Wanapum, in cooperation with the Grant County Public Utility District, began sponsoring ARPA training workshops for the region. Then, beginning in the mid-1990s, the tribes throughout the Columbia River system began working together to influence the development of federal agency cultural resources protection. These efforts led the Bonneville Power Administration, U.S. Corps of Engineers, and the U.S. Bureau of Reclamation to commit $65 million dollars over a 15-year period to strengthen CRM protection. Fourteen working groups composed of tribes and federal agencies oversee the work being conducted in different parts of the Columbia River system (see McKinney, CRM Vol. 21, No. 9, for more description).

An example is the Wanapa Koot Koot working group, which oversees the activities in the Bonneville and John Day reservoirs. Since the funding began in 1997, accomplishments have included surveys of the reservoir shorelines to document sites and ARPA violations, development of long-term monitoring procedures so that changes in site condition can be identified, and hiring of a full-time ARPA law enforcement person. Funding from the agencies has enabled the introduction of new technologies such as digital photography, laser mapping, and videography. The approach to CRM in the Mid-Columbia has changed dramatically since incorporation of tribal values has started.

Another example of tribal influence is found in the cooperative efforts at the Hanford Site, a 560-square mile site managed by the U.S. Department of Energy, Richland Operations. Contained within the Hanford Site are many places important to the tribes. Of particular interest is the Hanford Reach, the last 55 miles of undammed Columbia River. Since 1994, the Nez Perce, Umatilla, Wanapum and Yakama tribes have been working cooperatively with the DOE to improve the management of cultural resources. One benefit achieved from this relationship was the development of the HAMMER Cultural Resources Test Bed and Training Center, where the Umatilla ARPA training was held in October 1998.

The future of CRM is bright in the Mid-Columbia Region. More work is being done than ever before. Tribal involvement continues to increase. ARPA convictions are on the rise. Public education is more prevalent than ever. And most importantly, more groups and agencies are getting involved such as local cities, law enforcement agencies, and public groups. An indication of this success is in Benton County, where Hanford is located. In May, the Benton County prosecuting attorney’s office and sheriff’s department were awarded the Washington SHPO award for Stewardship. In making this award, Allyson Brooks, the new Washington SHPO stated: “The successful prosecution of looters by Benton County sends a strong message across the state that vandalizing and looting will not be tolerated.”

If efforts such as these can continue, ARPA violations in the Mid-Columbia will surely become a thing of the past.

*Julia G. Longenecker and Jeff VanPelt are with the Cultural Resources Protection Program, Department of Natural Resources, Confederated Tribes of the Umatilla Indian Reservation.*
The dust has settled for now at the John Muir National Historic Site. However, if you had driven by the Martinez, California site last fall, you would have noticed scaffolding around the historic home.

Over the years birds have pecked holes in the siding, "cut nails" have rotted the redwood molding they were meant to secure, sun-battered window sills have cracked, paint has peeled and the redwood rain gutters leak. By this past summer National Park Service specialists had assessed the exterior of the 116-year-old home of conservationist John Muir. Their findings confirmed the local NPS personnel's opinion that the exterior was in need of major rehabilitation, more care than could be provided. On this basis the John Muir National Historic Site, located some 30 miles northeast of San Francisco, applied for funds to proceed with this rehabilitation.

Funding was available through the "fee demonstration project," a trial fee schedule initiated by Congress a couple of years ago to address the mounting maintenance needs at many national parks. Those parks participating in this project charge a higher entrance fee and may, for the first time, retain 80 percent of these fees for their own maintenance needs. The balance is placed into a fund against which any national park may apply. The John Muir National Historic Site's application was granted.

In October, project leader Fritz Rushlow, sent from the National Park Service's Historic Preservation Training Center in Frederick, Maryland, led nine National Park Service craftsmen in the first stage of this two stage project. What they began last fall has been completed.

The attention to quality and authenticity led to many interesting and worthwhile challenges. In 1883, Muir's in-laws, Dr. and Mrs. John Strentzel, constructed this home using vertical-grained redwood, lumber milled in the ways of the 1880s. So that both original and replacement woodwork will receive paint equally well and weather evenly, vertical-grained redwood timbers were procured. The craftsmen used custom milling bits to transform these recycled timbers into replacement molding, siding, and trim.

Present-day technologies were called upon frequently. About half of the weathered window sills and rotted soffits have been cleaned and then patched with a space-age epoxy-filler compound. Silvery-white fiberglass fabric impregnated with a resin slurry now serves as a durable and nearly invisible patch across leaking redwood rain gutter joints. And then there were the "cut nails."

The 19th-century "cut nails," removed to facilitate repair, were replaced with 20th-century galvanized reproductions. Over the decades the exposed iron of the original nails and the rain reacted with parts of the redwood exterior causing the wood around the nails to decay. The galvanizing should prevent future decay by sealing in the iron.

Every repair was inconspicuously dated; "1998" was stamped on the back side of each piece of replacement molding, for example. This is a part of the greater documentation process which notes what was replaced or reinforced, where it occurred, and what materials were used.

Costly? Sure. Worth it? Yes. John Muir, among others, left us a legacy of national parks which warrant our care. His self-proclaimed mission, "to entice people to look at nature's loveliness," remains relevant for us and the world. From this house Muir pursued his conservation mission. Through this rehabilitation and the continuing efforts of the National Park Service and its friends this house will remain a platform from which appreciation for our natural resources will be taught and nurtured for generations to come.

John Keibel, an educator and photographer, is a volunteer at the John Muir National Historic Site.

Reviewed by Dwight T. Pitcaithley, Chief Historian, NPS.

"Nothing can overcome apathy, boredom, or contempt for the past as quickly and effectively as primary sources." With that brief and inviting statement, David Brion Davis begins his introduction to this anthology of 366 documents of American history that move from European discovery to the end of the Civil War. Organized in eight chronological sections from "First Encounters" to "Civil War," the documents, with few exceptions, were selected from the 35,000-item Gilder Lehrman Collection of American History at the Pierpont Morgan Library in New York City. While it begins with a letter from Christopher Columbus dated 1493, and contains a satisfactory representation of documents through European colonization up to the "Age of Revolution, 1765-1825," almost half of the entries will be found in the two sections that cover Antebellum America and the Civil War. It is within these 177 documents that the origins of the Civil War unfold step by step in the words of the actors themselves. Here the reader feels the passion of Andrew Jackson as he rebukes South Carolina in 1832 for attempting to nullify the tariffs of 1828 and 1832.

I consider then the power to annul a law of the United States, assumed by one state, INCOMPATIBLE WITH THE EXISTENCE OF THE UNION, CONTRADICTED EXPRESSLY BY THE LETTER OF THE CONSTITUTION, UNAUTHORIZED BY ITS SPIRIT, INCONSISTENT WITH EVERY PRINCIPLE ON WHICH IT WAS FOUNDED, AND Destructive of the Great Object for Which It Was Founded...Their object is disunion: but be not deceived by names: disunion, by armed force, is TREASON [emphasis Jackson's]

Here too is Hinton Rowan Helper, a contrary North Carolinian who argued (in 1857) that slavery was inefficient, should be abolished, and was responsible for the social and political domination of nonslaveholding whites.

The lords of the lash are not only absolute masters of the blacks, who are bought and sold, and driven about like so many cattle, but they are also the oracles and arbiters of all non-slaveholding whites, whose freedom is merely nominal, and whose unparalleled illiteracy and degradation is purposefully and fiendishly perpetuated....

The words and thoughts of Abraham Lincoln, Jefferson Davis, John Brown, Robert E. Lee, as well a dozens of other participants rise from these pages to give meaning and depth and nuance to the crisis of the Union. A letter written by Edwin H. McCaleb dated June 1, 1865 concludes the anthology. In it, he deplores the assassination of Lincoln, acknowledges the military defeat of the Confederacy, but maintains the supremacy of white Southerners over freedmen.

If we could have a system of gradual emancipation & colonization our people would universally rejoice & be glad to get rid of slavery which has ever been a cancer upon the body politic of our social organization....We would gladly substitute white for slave labor but we can never regard the Negro our equal either intellectually or socially.

Indeed, the issue of slavery infuses The Boisterous Sea of Liberty and comprises the longest entry in the very useful index. Christopher Columbus comments on the subjagation of the Indians on Hispaniola, Fray Tomas de Mercado critiques the slave trade...in 1587, Samuel Sewell publishes one of the first anti-slavery tracts (in 1700), Daniel Horsmanden documents a slave revolt in New York City, and a section titled "Slavery in Postrevolutionary America" presents different views of the subject during the 1780s. Through these original sources, we see American history, and American race relations, unfold with immediacy, clarity, and fervor. They provide us insights into past that are unfiltered and unadorned. While each document is introduced

Reviewed by David Poirier, Staff Archaeologist, Connecticut State Historic Preservation Office.

Lessons from the Past successfully unlocks the mystery of archaeology for the general public. Differing from most introductory readers on archaeology in its minimal emphasis upon method and theory, Lessons from the Past introduces us to the substance of archeological research, its practical application in today's complex world, and the normally reserved world of the archeological community. Ken Feder both teaches us about humankind's past and demonstrates its relevance to contemporary society.

This reader succeeds in bringing together a diverse collection of articles and essays that apply the unique perspective of archaeology on material culture to illuminate our understanding of the present. These eclectic essays range from the monuments of Zimbabwe and Cahokia; from the unwritten history of African slaves, Australian aborigines, and the Mashantucket Pequot; from Little Bighorn, the Donner Party, and Amelia Earhart; from the forensic archeology of lost servicemen to a woodchipper murder. A more varied and interesting ensemble of authors and archeological research would be difficult to assemble.

The 32 articles are organized in six groups: The Past is the Key to the Present; Serving Communities through Archaeology; A Useful Past: Archaeology in the Modern World; Helping History: Setting the Record Straight and Solving the Mysteries; If the Present Were an Archaeological Site; and Forensic Archaeology. Throughout the six parts, the excitement of archeological research and the fascinating linkages that can be demonstrated between the past, the present, and the future are omnipresent.

Interestingly, three contributions are borrowed from the pages of CRM. McBride's essay offers perspective on the day-to-day relevance of cultural resource management for the Mashantucket Pequot Nation (CRM, Vol. 18, No.2), while the public contributions of forensic archeology (CRM, Vol. 19, No. 10) to the finding and recovering of American MIAs (Holland and Mann) and criminal investigations (Bellantoni and Cooke) are recounted. These contributions highlight the common thread and success of CRM and Lessons from the Past—to share significant information on humankind's cultural heritage to a combined professional and lay audience in an enjoyable and readable manner.

A unique aspect of Lessons from the Past is its "I am an Archaeologist" commentary. Seven archeologists have taken this challenging opportunity to unveil aspects of their personal and professional lives. This first-person accounts offer subtle insights on the varied experiences of the archeological community, ranging from the how and why of choosing a career in archeology to the continuing exhilaration of working with colleagues and the public. These remarkable autobiographical sketches further enhance the overall breadth of Lessons from the Past and result in a most entertaining and educational volume for the student, general public, and the practicing professional.
The 208-foot-high Cape Hatteras Lighthouse is being relocated 2,900 feet southwest of its present location and 1,600 feet inland from the ocean. This move is underway to save this Landmark structure, built in 1870, from destruction due to the rapidly eroding beach along Hatteras Island. The lighthouse should reach its new site in July. Watch for a full account of this amazing preservation effort in a fall issue of CRM.
Arlington County, Virginia, is one of the smallest and most densely populated counties in the nation. Its 187,000 residents live in an area of about 26 square miles. Located just across the Potomac River from Washington, DC, the county is probably best known for Arlington National Cemetery, Arlington House, Fort Myer, and the Pentagon. But it has a number of other historic resources that tourists rarely visit. Foremost among them are its garden apartments.

Garden apartments are low-density, low-scale, multi-family residential developments that have their roots in the English garden city and the German superblock concepts. General characteristics include low-density superblock development, buildings clustered around landscaped courtyards, separation of pedestrian and vehicular traffic, and the use of shallow building plans and staggered setbacks to increase ventilation and light.

In the United States, garden apartments gained popularity in the Depression years of the 1930s as a response to a severe shortage of rental housing for moderate- and middle-income families. They became even more prevalent during World War II, as the need to house defense workers grew critical.

Three Arlington garden apartments played significant roles in the growth and development of this housing type. Colonial Village, Buckingham, and Fairlington were cited as national prototypes at the time of their construction. All are listed on the National Register of Historic Places, and all continue to serve critical housing needs today.

Because of their size and large percentage of open space, garden apartments present enormous preservation challenges, particularly in dense urban areas. Other issues, especially housing, are bound to be part of the process. To be successful, preservation planning should begin long before the redevelopment scheme is filed. The survival stories of Arlington's garden apartments offer preservation lessons.
Buckingham was still under construction as Americans began preparing for war. The need for housing became critical as manpower requirements shifted to meet war production needs in offices and factories across the nation. In response, the federal Defense Homes Corporation (DHC) was formed in 1940 to finance defense housing in localities where there were shortages that could not be alleviated through privately financed projects. DHC intended that the housing it built would be sold at war's end to become a permanent part of the community.

Fairlington, constructed between 1942 and 1944, was located just two and a half miles from the Pentagon, completed in 1943. With more than 3,400 units on 322 acres, Fairlington was DHC's largest project and also the largest apartment project in the nation at that time. Its Colonial Revival-style brick apartment buildings and attached townhouses, many with front entrance porches or stoops, were more varied in form and detailing than those of the other two developments.

**Preservation**

By the 1970s, all three garden apartments faced redevelopment pressure. Arlington, which 30 years earlier had been the “outer limits” of suburban development, now was in the inner ring. Two regional transportation projects—the Metro network of surface and underground transit, which opened its first Arlington segment in 1977, and the I-66 expressway, which opened in 1982—sparked significant changes. In response, the county's policy was to concentrate mixed high-density uses around the Metro stations.

**Colonial Village.** In 1977, Mobil Corporation's real estate company purchased Colonial Village, which had remained a rental community since its construction. The property's location, within walking distance of two soon-to-be-opened subway stations, made it a prime candidate for redevelopment. Tenants, preservationists and the Arlington County Board became concerned about the future of the village. Tenants formed the Colonial Village Preservation Committee advocating local historic district designation of the entire village, and in late 1978 the county board designated a small portion of it. (In a local historic district, exterior modifications must be reviewed and determined to be compatible with the district's historic character. The owner must obtain a permit before work can begin.) The board also formed a committee consisting of the developer, planning commissioners and representatives of the tenants' association and other civic groups to negotiate a compromise.

A year later, the county board approved a phased development site plan that accomplished a range of objectives: conservation, affordable housing, and redevelopment. Elements included sale of some units to affordable housing groups, some condominium conversions, long-term rental of some units, some demolition and rezoning for three 12-story office towers, and construction of a new condominium building and townhouses. In all, the exteriors of 75 percent of the units were preserved through historic designation or conservation.

**Buckingham.** Buckingham's preservation story is longer and more convoluted. Complicating factors throughout the process included multiple ownership, multiple tenant organizations, cultural differences, a lack of shared information, and competing and often hostile interest groups.

Buckingham remained under single ownership until 1981, when a new owner converted part of the property to cooperative units and later sold other portions, resulting in multiple ownership of the project. Tenants, many of whom were recent immigrants, feared displacement. In 1985, the Buckingham Tenants Association asked the county's architectural review board to initiate the historic district designation process for Buckingham. The review board asked the Arlington County Board for funds for a study, but its request was denied.

The matter lay dormant for several years until 1991, when one owner announced plans to demolish its portion of Buckingham to build new condominiums and townhouses. In May of that year the review board voted to initiate historic designation procedures for the entire complex, based on studies undertaken by graduate students at a nearby university. After a public hearing, the review board voted in September to recommend that the county board designate Buckingham as a local historic district and asked the county board to hold a public hearing to consider the matter. That hearing was deferred for many months. Most preservationists came to believe that the county board was using the “threat” of historic designation in an attempt to extract affordable housing and other concessions from the owners.
Colonial Village. The complex’s location near the subway line and major commuter routes necessitated trade-offs. The developer was allowed some higher density development (background) in exchange for preservation and conservation of existing buildings and affordable housing. Photo courtesy Judith Greig.

In the meantime, in 1988 the Buckingham Tenants Association and the Arlington Housing Corporation (AHC), a private, nonprofit housing sponsor, had begun exploring options for tenant ownership of part of the property. In early 1993, they presented a preliminary affordable housing proposal to the county board, and the board appropriated funds for further study.

Finally, in 1993, the county board held a hearing and designated a portion of Buckingham as a local historic district. It also approved an affordable housing deal, which hit a snag within weeks, however, because of foreclosure.

The new owner, Paradigm, worked out a new affordable housing plan. Paradigm also undertook substantial rehabilitation within the historic district, using a combination of Historic Rehabilitation Tax Credit and Low-Income Housing Tax Credit.

Fairlington. Fairlington’s story is very different. True to its goals, Defense Homes Corporation sold Fairlington in 1947 to two Texas businessmen whose company, Fairmac, continued to own and operate Fairlington as a rental community until 1968. After initially considering and then rejecting demolition and high-rise redevelopment, the new owner began conversion to condominiums in 1972. Tenants were given an opportunity to purchase before units were offered to the public. Conversion of the entire complex was completed and all units were sold by 1978, thanks to a savvy marketing campaign and attractive financing. While the interiors were renovated, the exteriors were left virtually unchanged. (A 1975 newspaper ad said: “These homes were solidly crafted to last generations; we left well enough alone.”) The project won an award from the Northern Virginia chapter of the American Institute of Architects and was cited in House & Home (“Hottest Condo Conversion in the Country?” August 1975).

In 1988, the North Fairlington Historical Designation Committee was formed in response to a plan by one condominium board to replace the community’s slate roofs with asphalt shingles. The committee was successful and, in anticipation of Fairlington’s 50th anniversary, began exploring the community’s eligibility as a historic district. In 1997, Fairlington was found eligible for listing on the National Register, and the committee geared up to complete the nomination application. Six volunteer teams were assembled (survey, photography, finance, communication, data input, and volunteer management), a web site <http://home.earthlink.net/~fairlington/> was established, a bank account opened, and training began. In two days in January and May of 1998, volunteers surveyed and photographed all 1,064 of Fairlington’s buildings. The completed nomination was submitted to the Virginia Department of Historic Resources in September, and Fairlington was listed on the National Register on March 29 of this year.

Conclusion

Early garden apartments are an important part of our cultural heritage. Preserving them can be challenging because of the very features that make them significant—their large size, low-density plan and low-scale buildings. But by planning for change using a combination of planning and zoning tools, local historic district overlay zones, housing and preservation tax credits, and sensitive rehabilitation—and above all by fostering community awareness of their history—these projects can be preserved so that they can continue to serve our communities.

Gail Baker is a former member of the Arlington County Historic Affairs and Landmark Review Board and a current board member of the Arlington Heritage Alliance.
The title of a 1992 article that appeared in *CRM* asked: “The Birth of Aviation in Dayton, Ohio: Is a New NPS Unit About to Take Off?” As of March 1999, it has! Designated on October 16, 1992 (PL. 102-419), Dayton Aviation Heritage National Historical Park (hereafter referenced as Dayton Aviation) has noted giant strides during the intervening years in the areas of planning, resource management, interpretation, partnerships, and community outreach. This non-traditional park based on underlying partnerships in Dayton offers an additional dimension to the birth of aviation story previously interpreted only peripherally at Wright Brothers National Memorial in North Carolina, a national park system unit since 1933.

Dayton Aviation consists of four noncontiguous sites managed by four legislated entities scattered throughout the metropolitan area. The National Park Service (NPS) manages the core unit in West Dayton featuring The Wright Cycle Company building, the Hoover Block (also referred to as the Wright Brothers Print Shop), and lands between; nearby, the Ohio Historical Society operates the Paul Laurence Dunbar State Memorial; Wright-Patterson Air Force Base takes the lead at Huffman Prairie Flying Field just east of Dayton; Carillon Historical Park owns the 1905 Wright Flyer III housed in Wright Hall south of downtown.

Despite its small size, Dayton Aviation can be likened to a “resource buffet.” The park interprets the technological development of the airplane, a restored fully functioning plane, and the first aviation test field. Additionally, the park celebrates the literary achievements of African-American poet Paul Laurence Dunbar, a business associate and friend of Orville Wright. This core unit in West Dayton interprets the personal and social dimensions of the neighborhood associated with the Wright brothers.

Besides the resource managing partners cited above, the NPS has had the support and direct involvement of several other key players. During the general management plan (GMP) preparation phase, the park developed and enjoyed a close working relationship with the federally chartered Dayton Aviation Heritage Commission (DAHC), a 13-member appointed group that provided much input to the GMP process. The DAHC collaborated with The 2003 Committee, a local entity considered the park’s godparent. This cooperative relationship was especially noteworthy in the area of transportation links between the park’s four units, a long-term need outside the immediate purview of the park. Congress gave the DAHC primary responsibility to “assist federal, state, and local authorities and the private sector in preserving and managing the historic resources in the Miami Valley, Ohio, associated with the Wright brothers, aviation, and Paul Laurence Dunbar” outside the...
boundaries of this very small national park system unit. Under the park's 1992 legislative mandate, the DAHC was charged with producing a preservation and development plan for the Miami Valley. Beyond all this, the state of Ohio created the Wright-Dunbar State Heritage Commission to work on economic and community development issues outside the scope of the park and federal commission. The state commission's clearly defined legislated (but not realized) responsibilities include preparation of a management plan for properties that should be "preserved, restored developed, maintained, or acquired," emphasizing redevelopment and revitalization of the Wright-Dunbar neighborhood of West Dayton. This plan will be prepared in cooperation with the city of Dayton, which is currently implementing a unique redevelopment plan for the neighborhood.

Without the herculean efforts of Aviation Trail, Inc., a pioneering local aviation history entity, there would be virtually no Wright Brothers resource base in West Dayton. In the mid-1980s, Aviation Trail acquired and restored The Wright Cycle Company building and mothballed the nearby Hoover Block. Following the park's 1992 designation, Aviation Trail sold the two buildings to The 2003 Committee which, in turn, donated the structures to the NPS in 1995. (These buildings became the park's resource base in the West Dayton anchor.) Aviation Trail is continuing its public spirited work near the park as it moves toward completion of the Setzer building project. The original Setzer building, next door to the Hoover Block but outside the park boundary, collapsed in 1992—only its original facade remained extant. Aviation Trail built a contemporary structure behind this facade for its museum and to serve as the group's corporate headquarters. Once this new building is fully operational, the park will lease space to serve as a shared visitor center for interpretive and support activities to complement the historic Hoover Block. Aviation Trail constructed an attractive outdoor plaza linking the bicycle shop with the Hoover Block and Setzer building to serve as the central gathering point for park visitors.

At the NPS core area, additional preservation work has continued on The Wright Cycle Company building. Enhanced security devices, new doors, structural support of floors, interior plaster and painting, exterior brick wall drainage improvements, and new roofing projects have been completed. To date, the Hoover Block has been given minimal preservation maintenance treatment to maintain weather and security integrity. Major rehabilitation work will commence in spring 1999 to have the structure ready for the 2003 centennial of flight. Preparations to celebrate the Century of Flight is being coordinated by The 2003 Committee in cooperation with the states of Ohio and North Carolina, highlighted by the recent appointment of a federal first flight commission.

Park partners are advancing their own preservation projects to get ready for an expected surge in visitation. At Carillon Historical Park, a new structure has been erected linking the bicycle shop replica with Wright Hall, giving more exhibit space and helping preserve the Wright Flyer III in a climate controlled environment. A multi-purpose visitor center is under construction. The Ohio Historical Society is completing extensive improvements at the Paul Laurence Dunbar State Memorial. A comprehensive site improvement program has resulted in a multipurpose building constructed adjacent to the Dunbar home and incorporates adjacent historic residences as library, study center for writers and visiting artists, and restoration of Dunbar's urban barn. Work continues at the Huffman Prairie Flying Field. Wright-Patterson Air Force Base is making the historical resources accessible to visitors with a vital connection to a community wide recreational trail as well as entrance, roadway, and parking improvements. A new interpretive center will be erected by Wright-Patterson near the Olmsted designed Wright Memorial on Wright Brothers Hill. This east anchor to the park will interpret the story of the Wrights' work at the

**Addendum**

In *CRM* Vol. 21, No. 11, "The 2003 Centennial of Flight," by Roger D. Launius should have noted that Ohio is represented on the Centennial of Flight Commission. The chair of The 2003 Committee serves alongside the president of North Carolina's First Flight Centennial Foundation, the director of the National Air and Space Museum, the administrators of NASA and the FAA, and one representative of an aviation/aerospace association.
nearby flying field and the impact their work had on Miami Valley's aviation heritage. Current planning is underway to include NPS interpretation and staffing at these linked resource sites. Physical connections are being improved via a community-based signage system to guide travelers along the Aviation Trail, an initiative to mark and interpret the diverse aviation resource sites along the trail in the Miami Valley.

While many supporters and friends of Dayton Aviation entertained enthusiastic expectations that the new park would be more expansive than reality warranted, local leadership had patience—to co-exist with the more deliberate movement dictated by the federal budgetary process. In terms of neighborhood revitalization in West Dayton, the core unit has served as a symbolic catalyst for other public and private partners. The city of Dayton has been a major player by building fourteen units of affordable housing in a traditional style that complements existing historic housing stock. The city has designated the area as the Oak and Ivy Park. Eighteen existing owner-occupied structures have been rehabilitated with five more in progress, and seven vacant houses have been redone with an additional seventeen in progress. New neighborhood infrastructure including improved signing, plantings, sidewalk paver stones, restoration of limestone curbs, historic-style lighting, and rerouted streets have come online. Today, the Wright-Dunbar area is providing attractive housing in a near-downtown setting with a unique historic character.

The federal DAHC has contracted with the National Trust for Historic Preservation Main Street Program and the city of Dayton to bring commercial revitalization to the West Third Street Historic District. Additionally, the city took the lead in rehabilitating a commercial building near the park to house the Innerwest Priority Board, one of Dayton's neighborhood-based planning entities. Community services have been allocated to highlight this neighborhood renaissance and community-based policing has helped remove previous negative images of the long overlooked West Dayton neighborhood. The public sector is working with property owners, developers, and the local business sector to foster commercial revitalization based on the historic community of the Wrights and Dunbar, anticipated to serve both the community and national park visitors in the 21st century.

Due to its legislative mandate, the congressionally appropriated revenue stream for the park will continue long after the initial capital intensive Hoover Block restoration project and further work at the bicycle shop are completed, with normal operations and maintenance funds allocated on an annual basis. Then too, as a major player, the state of Ohio deserves large credit for allocating several million dollars earmarked from the capital improvement funds for direct use at the park's core unit, the Aviation Trail building, Carillon Historical Park, Wright Brothers Memorial at Wright Brothers Hill, and other aviation-related projects in the Dayton area.

Today, in the development and management of nationally significant cultural resources, there is much buzz about partnerships that sound good in principle but stop short when it is time for partners to allocate the dollars to fund capital intensive development projects. The Dayton model proves it can be done with a mix of federal, state, city, and private dollars, provided there is the will and commitment for all partners to step forth. In Dayton, local and state government as well as semi-private funding was available up front to get this project off the ground. New parks do not arrive in full flower, but require a necessary planning and development phase to "take off." When the park's documented administrative history is written, the record will credit a diverse group of public and private sector individuals and organizations with spending endless hours, both paid and volunteer, to get the new park fully operational and to implement community improvements in the area. Now that the solid foundation provided by the NPS planning, design, and construction requirements is being
translated into bricks and mortar reality, Dayton eagerly awaits a grand centennial celebration in 2003.

Based on the Dayton area Aviation Trail commemoration, there is compelling rationale for the designation of a national aviation trail to link key extant sites celebrating the birth of aviation. Sites could include the pioneering aviation innovations of the Wrights, Chanute, Langley, Curtis and others. This could be accomplished through reviewing existing landmark theme studies, additional survey and evaluation of extant sites, preparation of a comprehensive historic resource study linking the sites in a thematic framework, sharing of information between existing recognized sites, and the preparation of a trail brochure and guidebook for individuals and organizations wanting to visit the sites. The National Aviation Trail could focus on the two national park units in Ohio and North Carolina; the birthplace of Wilbur Wright near Milan, Indiana; Henry Ford Museum and Greenfield Village in Dearborn, Michigan, which displays the boyhood home and a bicycle shop structure (relocated from Dayton in the 1930s); Fort Myer near Washington, DC, where Orville tested a plane for use by the Army, and other early aviation sites.

The challenge to the NPS is to meld non-traditional parks with the bureau's long-standing management, operations, resource stewardship, and outreach policies. The NPS has been a major presence in a number of non-traditional urban areas for well over 20 years. There is a growing cadre of trained and committed personnel and managers to operate these parks. While some of the new parks such as Dayton Aviation have a small traditional landbase and, due to their size and mission, may not attract recreationally oriented visitors, their importance and impact to the host communities transcends the acreage size, annual operations budget, or attendance figures. Non-traditional NPS units give communities such as Dayton, Ohio, an overarching sense of local pride. Communities realize that a park is not only important to the local scene but the entire nation. Similar to the societal thrust for urban areas to attract major league sports franchises, non-traditional urban parks help give identity to a community. A park like Dayton Aviation attracts the attention of local civic organizations, citizenry, and the media. Aviation Trail saved the resource base. The 2003 Committee advocated NPS status. Early in the process Dayton area private sector opinion leaders supported the creation of the new park for diverse reasons including heritage preservation, economic development, and urban renewal. Aviation history supporters in Dayton and elsewhere are to be applauded for their continuing support for the recognition and development of the new park, support which transcends the legislated contributions made by the federal sector. Dayton Aviation National Historical Park is a true non-traditional park and a proud partnership.

Ronald W. Johnson is Senior Planner, Denver Service Center, NPS.

Photos courtesy NPS.

**SOS! Cash**

Save Outdoor Sculpture! (SOS!) is offering cash awards to state and local agencies and nonprofit organizations to conserve local outdoor sculpture as a gift to the new century. SOS! Assessment Awards ($850) fund an on-site condition survey by a conservation professional to determine conservation needs. SOS! Conservation Treatment Awards of up to $40,000 to each state and the District of Columbia help to conserve public sculptures. SOS! Maintenance Training Awards of up to $7,000 help to train government personnel or volunteers in low-tech maintenance of up to four outdoor sculptures. SOS! Achievement Awards recognize local achievements in outdoor sculpture awareness and preservation with up to 12 cash awards. SOS! partners with the Girl Scouts to implement the SOS! 2000 Patch Program to encourage scouts to become involved in preserving their local heritage.

SOS! is a joint project of Heritage Preservation and the Smithsonian's American Art Museum. Deadlines for these awards vary. For more information, visit their web site at <www.heritagepreservation.org> or contact Susan Nichols at 888-SOS-SCULP or 202-634-1422.
Paul Laurence Dunbar

Visitors to Dayton Aviation Heritage National Historical Park often ask what the connection is between the park, whose name suggests a focus solely on aviation, and the poet Paul Laurence Dunbar, whose last home is part of the park. It is a unique story that brings together three people, Dunbar and Wilbur and Orville Wright. Paul and Orville met in intermediate school and continued their friendship into high school. The two were interested in very different subjects: Paul favored literature while Orville preferred the sciences. The two found a common bond when the Wright brothers started a printing business and assisted Paul by printing handbills and tickets for his recitations as well as a newspaper he edited. While his story is linked to the Wright brothers, this is not the only reason Dunbar was included in the national park. His success and achievements make him a significant figure in American literature.

Paul Laurence Dunbar was born in Dayton, Ohio, on June 27, 1872, to former slaves. By the time he was in elementary school, Dunbar developed an interest in poetry and began composing his own poems. Several years later, in intermediate school, Paul often recited poems at assembly programs. These early poems impressed fellow student and budding inventor, Orville Wright, and the two became friends, often walking home from school together.

Dunbar entered Dayton’s Central High School in 1886 as the only African American in his class. Active in student affairs, Dunbar joined the literary club in 1888 and became president for the 1891 spring semester. He also contributed to the school newspaper and went from general assistant editor to editor-in-chief his senior year. During this time Paul continued to write poetry and short stories and many were included in the school newspaper.

As Paul’s interest in poetry and literature increased, he formed a partnership with Orville Wright, who operated a printing business with his brother Wilbur. Dunbar became a client in December 1890, when he started a weekly newspaper, The Dayton Tattler. He served as the editor and main contributor to the newspaper while the Wright brothers did the printing. The weekly newspaper targeted a local African-American audience. Only three issues were published, for Dunbar stopped publication when the newspaper failed to make a profit.

Dunbar achieved his parents’ dream and graduated from Central High School in 1891. Following graduation, the young poet searched for a job and dreamed of attending college. Instead, he encountered the racism and bigotry typical of his time. Frustrated with his failure to secure a job befitting a high school graduate, Dunbar accepted a position as an elevator operator.

At his new position, Dunbar continued his interest in literature by reading and writing poetry and short stories between elevator calls. For this reason he was often seen perched on his stool in the elevator surrounded by books and papers. After many failed attempts, Paul sold his first short story, written in a western dialect and titled, “The Tenderfoot,” in December 1891 to the Kellogg Syndicate for six dollars.

In the summer of 1892, a former high school teacher invited Dunbar to present a welcoming address at the Western Association of Writers meeting in Dayton. Unable to attend the entire meeting, Dunbar left his elevator just prior to the recitation and returned immediately after the performance. The audience reacted favorably to his poetry, and the next day several people, including Dr. James Newton Matthews, stopped to speak with the poet. Impressed with Paul’s poetry, Dr. Matthews included some of his poems in an article that was published in newspapers both in the United States and England. This article caught the attention of Indiana’s Hoosier poet James Whitcomb Riley who wrote an encouraging letter to the young poet.

Riley’s encouragement, as well as that of friends and supporters in Dayton, convinced...
Dunbar to publish a book of his poetry. The book, *Oak and Ivy*, was printed and ready for sale by December 1892. With the publication of *Oak and Ivy*, Dunbar’s literary career continued to grow and opportunities for public performances increased. In the spring of 1893, Dunbar met Toledo attorney Charles Thatcher, who along with H.A. Tobey, superintendent of the Toledo State Hospital, assisted Dunbar in publishing his second book. Titled *Majors and Minors*, the book was released in 1896.

Following a review of his new book, Dunbar’s life literally changed overnight. Given a copy of *Majors and Minors* by a friend, literary critic and novelist William Dean Howells wrote an enthusiastic review of the book for the June 1896 *Harpers Weekly*. Immediately thereafter Dunbar received numerous requests for copies of his book and further opportunities for recitations. The exposure vastly increased the recognition of Dunbar’s work.

The resulting success led to a tour of England and then a job at the Library of Congress in Washington, DC. Paul quit the job at the library after only a year, for he was finally able to support himself solely through his writings and recitations. He continued to maintain his home in Washington, DC, though he was constantly out of town giving recitations.

A prolific writer, Dunbar produced over 400 poems, four novels, four volumes of short stories, and several plays. His poems were written in both traditional and dialectic verse. Reflecting the serious issues of his time, the poems often discussed life as an African American and equality. The dialect poems were light in character. Dunbar listened to older African Americans talk, and incorporated their dialect into poems about experiences and everyday life as a slave on a plantation.

Paul Laurence Dunbar died in Dayton in 1906, at age 33, of tuberculosis. The tragedy of early death of an acclaimed poet and author called further attention to his achievements. Dunbar’s literary recognition and success provided real hope to young African Americans at a time when dominant white society encouraged them to pursue industrial arts instead of literary arts. His life was an example that offered new realms of possibilities for African-American youths. It was for this reason that many African-American schools throughout the United States bear his name.

The memorialization of Dunbar did not end with his death. In 1936, the state of Ohio purchased his last house, his only extant home in Dayton. Dunbar lived in the house for the last two years of his life, and his mother continued to occupy it until her death in 1934. It was opened by the Ohio Historical Society as a museum in 1938. The Secretary of the Interior designated the house a National Historic Landmark in 1977 and, in October 1992, the Paul Laurence Dunbar State Memorial became a partnership site of the Dayton Aviation Heritage National Historical Park. The national park was mandated to preserve the stories of Dunbar and the Wright brothers as well as the unique friendship among the three.

While recognition of Dunbar’s works has decreased since his death, the significance of his achievements has not dimmed. The remaining schools, streets, park, and other buildings named after Dunbar are a testament to his success. The Paul Laurence Dunbar home, preserved as when Dunbar lived there, is one of the few places where the story of Dunbar’s life and his vast achievements are presented.

*Ann Deines is the historian at Dayton Aviation Heritage National Historical Park.*

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“Death Valley, You Live Where”?

Check out Death Valley National Park’s recruitment video, “Death Valley, You Live Where?” The video was developed by the park’s equal opportunity committee, to help with recruitment. Death Valley is working to increase its applicant pool, hoping to attract potential employees with diverse backgrounds. This video features footage of scenery, interviews with employees, and answers a variety of questions that potential applicants have. It is the first of its kind in the National Park Service.

The video was sent to all of the National Park Service sites and is available for loan from Death Valley National Park’s personnel office. The committee also plans to conduct workshops in the local communities on how to effectively complete an application/resume for National Park Service jobs. For more information, call 760-786-2331 or contact our web site at: <http://www.nps.gov/deva>.

CRM No 5—1999
John Enright

American Samoa Prepares its Historic District for Centennial

On April 17, 2000, the Territory of American Samoa will commemorate its centennial of association with the United States of America. It was on April 17, 1900, that the American flag was first raised on the island of Tutuila, on a hill above spectacular Pago Pago Bay.

In preparation for the centennial celebration, Governor Tauese Sunia has initiated a campaign to beautify and refurbish the historic "downtown" area in the village of Fagatogo. A central feature of this town area is the U.S. Naval Station Tutuila Historic District, which was placed on the National Register of Historic Places in 1989.

The historic district in Fagatogo is comprised of 10 buildings constructed by the U.S. Navy during the period of its administration of the Territory (1900-1951) and a central parade ground. The major buildings were all constructed prior to 1920. While a number of historic district buildings facing the old parade ground are being repaired and restored to various degrees, the most extensive and impressive restoration has been to the old Naval Administration Building (Navy Bldg. No. 21), which now serves as the High Court of American Samoa.

Built in 1904, the two-story High Court building is a classic example of tropical Naval Colonial architecture of the period, with broad verandas surrounding it on both floors. Like all wooden structures in the tropics, the building had a long history of deterioration and periodic patchwork repair. Over the years, as the function of the building changed, much of the once spacious interior had been haphazardly turned into warrens of offices. There was extensive termite and rot damage, especially to the ancillary additions.

Working closely with the American Samoa Historic Preservation Office, the architect, contractor, and project manager carefully deconstructed the building's interior, salvaging for reuse all possible original material. The building was then lifted four feet off the ground so that new footings and foundation structural units could be emplaced and the building lowered again. The entire building was structurally hardened to meet modern standards of hurricane resistance.

Work on the building's exterior included the removal of decades of paint and the matching and replacement of damaged pillars, windows, and veranda railings and flooring. Pains were taken to identify and match the original paint colors of the walls and trim. Working from old photographs supplied by the Historic Preservation Office, the ornate woodwork that had originally embellished the porch pillars and railings were replicated.

The restoration took 12 months and cost $1.2 million. The project was funded through a U.S. Congressional appropriation with additional funding from FEMA for hardening. At the ceremonial dedication of the restored building, the project contractor and architect proudly claimed that the building was ready to last another 90 years. Its restoration sets a standard and an example for the rehabilitation of the rest of the historic district buildings and other structures in the surrounding town area.

John Enright is the Historic Preservation Officer for American Samoa.
Shannon Ricketts

Commemorating the Underground Railroad in Canada

Recently, Parks Canada has been working with the U.S. National Park Service in a joint initiative to commemorate the Underground Railroad, a phenomenon that resulted in what is currently estimated to have been some 20,000 African Americans settling in Canada between the 1820s and 1860s. While refugees arrived in various parts of pre-Confederation Canada, the majority crossed into then-Upper Canada at border settlements along the eastern and western ends of Lake Erie. In Canada, the story of the Underground Railroad (UGRR) is one of building communities and it is the physical survivals from these settlement patterns that have been the most recent focus of Parks Canada’s program of historical commemoration.

During February 1999, the Government of Canada announced the designation of two new national historic sites, the commemoration of two persons associated with a settlement site, and the inclusion of related UGRR history in the reasons for designation of five existing national historic sites. These designations bring to the attention of the public both the importance of sites created by UGRR settlers and, through the inclusion of UGRR history in the reasons for designation of other well-known national historic sites, the impact of the UGRR experience on a broad spectrum of Canadian life.

There is an astonishing wealth of UGRR sites in southwestern Ontario. Fittingly, the most numerous surviving building type is the church, that institution central to the lives of the UGRR settlers. One of the new national historic sites is the Nazrey African Methodist Episcopal Church in Amherstburg. Now part of the North American Black History Museum, this evocative vernacular structure tells, through its handmade, fieldstone construction, the story of the small congregation who lovingly raised its walls and found strength and community through the wrenching period of adjustment and in difficult years to follow. The AME Nazrey Church is named for Bishop Willis Nazery, who led many AME congregations into the British Methodist Episcopal denomination. The creation of the BME Church was a response to the increasingly dangerous conditions in the United States and the difficulties they posed for Black Canadians travelling to AME church congresses. With the Civil War, many returned to the United States to serve in the Union Army, significantly reducing the refugee population in Canada. Over the years, others moved to larger centres. Eventually most dwindling BME and AME congregations reunited. It is telling that, not only the AME Nazrey Church, but so many others have been preserved by determined descendants of the original refugees. All Canadians must be forever grateful for their stewardship of these important talismans of Canadian history.

In the towns and cities where most UGRR refugees settled, domestic sites have almost completely disappeared, succumbing to pressures of urban development. In the 1980s, however, archeologist Karolyn Smardz identified the homestead built by Thornton and Lucie Blackburn. Famed as principals in the “Blackburn” riots occasioned by their arrest and subsequent escape from Detroit, they became respected citizens of Toronto, active in the refugee community and founders of the city’s first cab service. The site is on the grounds of a busy downtown school and has little above-ground to suggest its UGRR history. Since the archeological remains are protected, the Ministerial advisory board, the Historic Sites and Monuments Board of Canada, recommended that Thornton and Lucie Blackburn be designated as persons of...
national historic importance, representative of the many urban UGRR settlers, and that an exhibit on the experience of UGRR settlers be mounted in Toronto.

By contrast, the site of the former Elgin Settlement, a planned rural community of UGRR refugees now known as the Buxton Settlement, has survived with a very powerful sense of place. Located on the north shore of Lake Erie and encompassing some 7,000 acres, the Buxton Settlement has been designated a national historic site because of the important survival of its settlement form, defined by field, road, and drainage ditch patterns and a wealth of original structures including houses, churches, a school, and artifacts exhibited in the Buxton Museum. Descendants of the original settlers still live at Buxton, some continuing to farm, and all proud witness to their forebears' achievements.

This year marks the settlement's 150th anniversary and the unveiling of the Historic Sites and Monuments Board of Canada plaque to this recent addition to the system of national historic sites.

UGRR refugees came to Upper Canada because, under British law, they were guaranteed freedom and civil rights. Despite frequent challenges brought by American slave-owners, the courts, in all but one known instance, defended their freedom. Full civil rights were more difficult to achieve, but the battles for equal rights and for the abolition of slavery everywhere, became powerful issues in the consciousness of the nascent nation. African Canadians actively defended those freedoms by joining militia groups in 1812 and again in 1837. This aspect of UGRR history is associated with the national historic sites of Fort George at Niagara-on-the-Lake and Fort Malden at Amherstburg and is now officially acknowledged. The role of the courts in defending the refugees against extradition charges is now recognized at Osgoode Hall National Historic Site as is the important abolitionist activity which took place at St. Lawrence Hall National Historic Site, both in Toronto. Also in Toronto, the home of George Brown, renowned newspaper editor, politician, and Father of Confederation, is a national historic site which will now be able to more fully present his intimate association with the UGRR community and its role in helping to launch his political career.

Once again, research into an area of history long overlooked has revealed important aspects of so-called mainstream history. The recent national designations of UGRR sites and persons have begun a process that has enormous potential for a fuller understanding of Canadian history.

Notes
2 Historically, the name of the church and the name of the Bishop have been spelled differently.
3 Parks Canada is indebted to Karolyn Smardz, public archaeologist in charge of these excavations. Smardz's extensive research on the Blackburns will be the topic of her Ph.D. thesis being carried out under the direction of Professor James W. St. G. Walker at the University of Waterloo.

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A Pragmatic Rehabilitation
The Continuing Use of Arisbe, Home of C.S. Peirce

In our struggle to understand pragmatism, noted architect Robert Venturi reminds us that “Pragmatism is the kind of thinking that keeps doors opening, rather than operates in closed rooms.” After three years of closed doors and extensive rehabilitation, the doors of Arisbe, Greek name for the home of American philosopher and father of pragmatism—Charles S. Peirce (pronounced “purse”) are at long last open. Appropriately, a public open house and commemorative ceremony were held on Peirce’s birth date, September 10, in 1998.

What follows is a description of what took place at Arisbe and an explanation of why the Delaware Water Gap National Recreation Area took a pragmatic interest in its long-term preservation through a difficult process of rehabilitation and continued adaptive use as park scientific offices.

Building Evolution
The building as seen today reflects some 27 years of expansion and remodelling carried out by Charles and Juliette Peirce between 1887 and 1914. In their attempt to create an “institution for the pursuit of pure science and philosophy” they nearly tripled the size of what had once been a modest farmhouse belonging to the John Quick family. “It is not in the least in the Queen Anne nor any other style. It is our own original style,” Peirce proudly wrote at the beginning of his remodelling campaign. At that time the building had assumed a New England Shingle Style appearance. (In her Historic Structure Report, now retired NPS historical architect Penny Batchelor would later consider this to have been the building’s “architectural zenith.”) As Peirce continued to add on to the building, however, he became less positive in his thinking. Acting as his own architect, he lamented instead on how his unending construction endeavors were diverting him from doing the very writing he was more suited for.

The Peirces wished to establish a summer school for philosophical studies or alternatively, a year-round country resort—Arisbe Villa. In the end though, Arisbe would become an albatross. Being too big, it eventually drained them of their energy and their funds. The third floor, added between 1909-1914, like many of Peirce’s writings, was never completed in his lifetime. He died on April 14, 1914. His wife Juliette’s attempts to procure a second mortgage with which to continue the work and enhance the saleability of the property failed. Thus, at the time of her death in 1934, Arisbe was in poor condition. A builder, Robert Phillips, would carry on construction after purchasing the property for $3,600 at the auction of her estate in 1936. In the process of completing what Peirce had begun, Phillips renovated and altered Arisbe, yet did not significantly change its 1914 exterior appearance. The Phillips family sold the property to the National Park Service in 1972 for $60,000.

The National Park Service
Much of what we know today about the evolution of this complex building is documented in Penny Batchelor’s Historic Structure Report written in 1977 (and published in 1983). There was both public and congressional interest at the time in establishing a Charles S. Peirce memorial museum. Accordingly, the Historic
Peirce's former study during destructive investigation. Exhibit Specialist Paul Jaeger points to decaying exterior wall framing damaged over the years by moisture wicking through the riverstone veneer installed by Peirce in 1909.

Structure Report contained a preliminary estimate for the cost of such an undertaking, dated November 1977, for the amount of $659,000 (a figure which included additional research, planning and design, construction and construction supervision—all under the direction of the National Park Service Denver Service Center).* That estimate did not include the cost of exhibits and furnishings.

Congressional funding of that magnitude was not forthcoming, however. Nor was sufficient participation from potential cooperators such as the Charles S. Peirce Society, save for a study prepared by architect Robert Venturi titled A Preliminary Presentation of Ideas for the Charles S. Peirce Museum. The museum idea subsequently faltered. In its stead, the NPS, with modest expenditures, established park housing, and later, a few scientific offices in the building in 1985. Just prior to this, limited structural interventions had been introduced in an attempt to stabilize what would later prove to be a failing first floor framing system. Over time, the entire building would be occupied by the Division of Research and Resource planning, the scientific branch for natural resource management in the park. This seemed at the time, and still does to this day, to be an ingenious adaptive use for Peirce's home. Rather than "petrify" the building for posterity as a museum, we converted it to office space for scientists. Peirce himself was a scientist and had always wanted the building to become a scientific "think tank" for the pursuit of pure science. However, Arisbe still faced serious unresolved structural deficiencies, the drastically uneven and spongy first floor being only the tip of the iceberg. Mechanical and electrical systems were inadequate and unsafe, too.

The Rehabilitation
In 1993, using programmed cyclic maintenance funds, the park hired Ortega Consulting of Media, Pennsylvania, to perform a structural evaluation of the building and determine what was behind the drastic settlement and weakness of the first floor. The prognosis was not good. The first floor framing was "afflicted by pervasive and extensive fungal attack, insect damage and poorly executed alterations." Total replacement of that floor system and significant structural repairs elsewhere would be required. Existing conditions and structural repair drawings were prepared by Ortega Consulting. To address Arisbe's generally poor condition, we decided to rehabilitate the entire building while the interior was wide open and undergoing structural repair. This was an opportune time to replace and upgrade antiquated plumbing, heating, and electrical systems which were hopelessly intertwined with the first floor framing system and would be disturbed anyway during the process of rehabilitation. Interior finishes disrupted along the way would be repaired later on. A rehabilitation rather than a restoration, the building's current altered state was accommodated.

This decision to repair the building did not come easily, even considering Peirce's renown. Due to steep projected costs, we actually considered abandoning the building and establishing a new home for its occupants elsewhere in the park. But other vacant structures required an equivalent if not a greater amount of expenditure. In the end we proceeded with the rehabilitation, thus preserving not just bricks and mortar, but the energy expense embodied in the building. Old buildings like Arisbe, after all, represent not just memories, but a calculable amount of resources. To quote Stewart Brand, "An old building, like an old forest, has intergenerational equity."

To finance the project, construction work was phased over a three-year period in sync with anticipated annual cyclic maintenance funding. For economy, work was overseen by park staff, engineered by private engineering firms, and constructed by a combination of local subcontractors and NPS employees. As a result, the project was completed for significantly less cost than previous large construction projects here at Delaware Water Gap. The general contractor for the project who oversaw the extensive structural and mechanical repair work was R. I. Williams &

*Final cost of the project was $662,000.
Associates of Glenside, Pennsylvania. They were selected from the Small Business Administration's 8(a) minority contracting program. The proposed work was divided into four zones, each corresponding to one quadrant (approximately one-half of the first or second floors of the building.) Intense construction activity would be limited to one zone at a time. In theory, this would enable the occupants and construction crews to co-exist. The contract was awarded in September 1995. With the occupants relocated to the second floor, we were ready to begin the first phase.

The work of Phase I entailed extricating the front half of the first floor framing and then installing new framing using modern “sustainable” lumber products such as wood I-joists and parallel-strand laminated beams. Only a small amount of structural steel was used. Maintained within the new framing scheme were references to historic elements that may in the future be reconstructed. Original hardwood-finish flooring made of chestnut was carefully salvaged from the front half of the building for reinstallation in Peirce's former study at a later date.

Phase II repeated this same procedure over the back half of the building. Once the new first floor was in place, mechanical and utility upgrades, already underway, could proceed in full. The basement and unfinished third floor of the building provided an ideal location from which to feed up or down respectively the new utilities into occupied spaces on the first and second floors. At about this time a decision was made to remove the building occupants from what were becoming impossible working conditions. Dust and noise control measures were proving unsuccessful, so the occupants were relocated to two on-site office trailers for the remainder of the project.

Phase III proved to be the final phase of the project. It focused on the replacement of services including the installation of a new four zone heating and air conditioning system; rewiring the electrical, computer networking, and phone systems; replumbing and repairing the toilet rooms, lunchroom, and laboratories; and completing all interior finishes. Persons with disabilities were accommodated at the first floor level by constructing a new access ramp with adjacent parking. Interior finish carpentry and cosmetic work were the responsibility of NPS day labor. A core work crew of three-to-five employees was detailed to the project, assisted by other employees when conditions permitted. This NPS crew performed demolition, carpentry, sheetrock and spackling, plaster repair, wood-floor restoration, millwork and finish carpentry and interior painting.

As a final touch, the exterior was freshly painted using a grayish-brown color scheme. This recalls the appearance of the unpainted and weathered wood shingle siding visible in historic photographs. The resulting rehabilitated first and second-floor-level office areas total some 5,000 square feet. The unfinished basement and third-floor levels house mechanical, electrical and plumbing equipment. Site work, to be completed this summer, will bring to closure the rehabilitation of Arisbe.

Charles S. Peirce, on the other hand, implied there is no closure. Peirce left his work incomplete, to be completed by others. Peirce wished above all else to provoke thought leading to further thought and inquiry—“Do Not Block The Way Of Inquiry,” he said. In other words, keep an open door—an open mind. Indeed, were he alive today, while he would not recognize the technological improvements since visited upon his former home, he would, I believe, recognize the building as an example of the physical reality inherent in a space-time continuum. More than any other human artifact, buildings change over time. When the practical consequences of such change result in the continuing use of a historic property such as Arisbe, then perhaps its rehabilitation can in fact be referred to as pragmatic.

In closing—Pragmatism has as its object and criterion the generation of “useful knowledge.” I think Charles S. Peirce would be
delighted to know that his former home is being used for just that purpose today.

References

Keri Jean

Charles S. Peirce

Charles Peirce was born in Cambridge, Massachusetts on September 10, 1839. By the age of 16 Charles had enrolled at Harvard. There he received an undergraduate degree and an M.A. From Harvard he went on to attend the new Lawrence Scientific School and earned a B.S. in chemistry.

Peirce pursued his interest in philosophy, logic, and methodology contemporaneously with his scientific education. During the Civil War, Peirce was a regular aide for the U.S. Coast and Geodetic Survey. From there he embarked upon a career that would take him from chemistry into astronomy, geodesy (the mathematical measurement of the earth's surface), metrology (the science of measurement), and spectroscopy (the study of the light spectrum). Peirce lectured on ephilosophy and logic at Harvard and Johns Hopkins, though he was never granted a full professorship at either institution.

To the philosophical world, Charles Peirce is considered the father of pragmatism, a method of sorting out conceptual confusions by relating meaning to consequences. While still in Cambridge he met with the Metaphysical Club whose members consisted of famous philosophers such as Oliver Wendell Holmes, Chauncey Wright, and William James. With these men Peirce developed the theory of pragmatism that would later develop into a school. The idea of pragmatism is considered by some philosophers to be a uniquely American style of philosophy.

Peirce worked for the Harvard observatory from 1867-1875 and was appointed superintendent of a survey within the U.S. Coast and Geodetic Survey (USC&GS) in 1867. From research accomplished at the observatory emerged Peirce's only published work, *Photometric Researches*. By 1872 he was in charge of the pendulum and gravity operations within the USC&GS. With the Coastal Survey he gained world recognition for his pendulum work. While with the USC&GS he created the quincuncial map projection in 1876, which allowed for an accurate projection of the earth's surface on a flat map. This cartographic tool is still used today as an international air route chart. Peirce also determined the length of a meter from a wavelength of light in 1879 and in 1884 he was assigned special assistant to gravity research with the USC&GS. After Congress discontinued funding the pendulum studies in 1891 he focused mainly on writing.

One of Peirce's projects in mathematics during this later period was a series of "existential graphs." The significance of these existential graphs, however, was not recognized until the development of a computer-based representation of graphical inference. A version of his graphs is currently being used by computer scientists around the world as a knowledge representation schema for artificial intelligence applications.

On April 19, 1914, he died of cancer surrounded by piles of unpublished works. Harvard purchased many of these papers from his wife, Juliette. Almost two decades after Peirce had died unappreciated, two American philosophers, Charles Hawthorne and Paul Weiss, began to publish his writings in 1931. Universities throughout the world have since created establishments such as the Peirce Edition Project at Purdue University of Indiana. Scholars today have just begun to take account of Peirce's uncanny propensity to suggest scientific and philosophical themes a century ahead of their day.

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A major problem confronting early colonists residing along the southeastern coast of North America was the development of a building material that could withstand the special challenges of the environment. The hot, humid climate rendered wood construction unsuitable because of its susceptibility to rot and insect infestation. Traditional forms of masonry, involving the use of bricks, were equally unacceptable due in large measure to shortages of requisite raw materials and excessive cost. Some happy medium had to be reached that would provide the 18th-century European residents of the area with durable and affordable housing.

The answer for many was tabby, a building material comprised of lime, sand, and oyster shell. Tabby use in the New World has a long and storied history. Brought to this hemisphere by the Spanish in the 16th century, it was adopted by British colonists in the early-18th century. It was particularly popular in the colony of Georgia, where its use was advocated by the colony's founder General James Oglethorpe. Colonist Henry Myers noted: "As bricks were dear and much labor for young beginners, we have fallen upon a much cheaper and better way of making houses, of a mixture of lime and oyster shells (of which we have vast quantities) framed in boxes, which soon dries and makes a beautiful, strong and lasting wall."

High quality lime was a critical component in tabby construction. Since lime in bagged form was not available in the 18th century, the only way to obtain lime was to produce it oneself. Therefore, the manufacture of lime was an essential component of masonry construction during this era, and it was particularly important where tabby was a popular building material.

Lime Manufacture and Tabby
Lime manufacture in southern coastal regions during the colonial era was extremely labor intensive. Initially a pit had to be excavated and filled with pine knots, heart pine, and other small sources of kindling. Once the pit was completed, a log structure, or rick, was erected over it. The rick consisted of several tiers of logs that supported layers of smaller logs covered with thick layers of oyster shells. Outwardly, the rick resembles a small, roofless, log cabin full of oyster shells. The rick was then set afire and allowed to collapse into the pit as it burned.

As the rick burned, temperatures of approximately 2000°F were obtained. This level of heat was essential if the necessary chemical reactions required to convert the calcium carbonate in the oyster shells into calcium oxide was to occur. Although information pertaining to the size of ricks used during the colonial era is extremely rare, one source suggests that "two or three hundred bushels [of lime]" were being produced per burn.

Archeology of Lime Middens
After thorough examination of the literature, and the pits that remained following a series of experimental lime burns at Fort Frederica on St. Simons Island, Georgia, it was evident that the manufacture of lime in the fashion described above would leave a significant archeological signature. Stratigraphically the pits, or lime middens, that were created during lime burn should contain layers of shell, burned at very high temperatures, mixed with charcoal, ash, and small quantities of decayed lime.

Analyzing the structure of these lime middens may provide answers to important questions regarding the execution of lime manufacture in the southeast during the colonial era. For example, the literature is essentially mute on the subject of rick size. One source suggests that they were as large as a freight car. There are also no direct references to how many times a particular rick location might have been used. Answers to both of these questions would provide significant insight into the scale of lime manufacture in the colonial southeast. Given the apparent inadequacy of historical documents regarding specifics of colonial lime manufacture, the only other source of information is the archeological record.

The main objective of the archeological investigations summarized below was to identify
the location of lime burns associated with Nathaniel Greene's Dungeness plantation and assess, to the extent possible, the size and structure of the remaining lime midden(s).

**Field Methods**

Cumberland Island National Seashore is administered by the National Park Service. As a general rule, the National Park Service seeks to minimize disturbance to important historic sites during the execution of research at any of its parks, forests, seashores, and monuments. Our field methodology, therefore, had to balance the requirements of the National Park Service with our desire to obtain information about a practice, once common, now all but forgotten.

The solution to this challenge was to utilize a combination of methods that would result in reasonable data recovery and minimize subsurface disturbance to the site. A widely used method of remote sensing was used to isolate areas that might contain lime middens, and then these were tested using a series of small soil cores.

The use of infrared aerial photographs (IAP) is one of the most common forms of remote sensing used in archeology today. The basic premise behind IAP is that buried cultural features will have different thermal properties than the surrounding, undisturbed, soil matrix. It is the thermal properties of the soil that are recorded on IAPs. A subsurface feature such as a lime midden should be evident on these photos, if not as a discrete feature at least as an anomaly. Vigorous grass growth will often appear bright red on an infrared photograph.

Given the utility of lime as a fertilizer, and the presence of residual lime at a rick site, we expected any potential lime midden areas to present a bright red thermal signature on the IAP. The information provided by infrared photographs alone was insufficient to yield the kind of insights into lime manufacture that we were seeking. Merely identifying an area characterized by vigorous grass growth does not lead to the inescapable conclusion that a lime midden is present at that location. An underground spring, for example, might also contribute to vigorous grass growth. Consequently, additional fieldwork was necessary to "ground truth" the information produced by examination of the IAPs. We planned to address this problem by taking a series of small soil cores systematically placed in any areas the infrared photos suggested might contain a lime midden. Examination of these cores would provide the stratigraphic information necessary to evaluate whether or not a lime midden was present.

**Results**

Examination of the IAPs of the Dungeness area revealed a large red anomaly within 150 meters of the existing Dungeness ruin. The area occupied by the red anomaly was approximately 13 meters in diameter. All that remained at this point was to examine the stratigraphy of this area and evaluate whether or not it was consistent with a lime midden.

A sampling grid 25 meters on a side was centered on the potential lime midden area. The sampling grid consisted of nine parallel transects laid out at 2.5 meter intervals. Cores were taken at 2.5 meter intervals along each transect. Each core was 2.54 centimeters in diameter, and ranged in depth from 10 centimeters to approximately 1.2 meters, depending on soil conditions. A total of 99 cores were obtained and analyzed.

In the analysis of these cores a number of variables were examined to help evaluate whether or not a lime midden might be present. Given the fact that lime production involved burning a rick, we expected to find the soil laced with charcoal fragments and ash, which would be indicated by a grayish tone to the soil color. We also expected to find burned shell that was subjected to heat high enough to produce lime putty. The presence of lime putty turned out to be critical. The shell used to make tabby and lime was taken from Native American shell middens. Most of the shell in these middens represented food refuse, which had probably been exposed to high heat in the cooking process. The heat produced by a typical cooking fire is not hot enough to reduce parts of the shell to lime putty. This requires sustained temperatures of 2000° F. Therefore, the presence of lime putty on a shell was viewed as an indicator that the shell had been burned in a rick as opposed to a cooking fire.

A total of nine cores in two adjacent transects produced materials, in the form of shell reduced in part to lime putty, charcoal, and an ashy character to the soil, consistent with those expected in a lime midden. The area encompassed by the nine cores was approximately 12.5 meters long and 4 meters wide.

A number of factors suggest that the area tested by systematic coring corresponds to the former location of a lime rick. First, the content of the cores themselves is consistent with the buried remnants of a burned lime rick. Second, historical records alluded to earlier indicate that lime ricks
could be as large as a freight car. The area tentatively identified as a lime midden here, closely approximates the size of a freight car. Lastly, the location of the potential lime midden is in close proximity to a shell source, the midden Dungeness was built upon, and the construction site. The advantages of locating a lime rick close to a shell source is obvious. Shell is bulky and heavy, so transporting it in the quantities required for lime production over long distances could have been an onerous task. The cost in man-hours would have been substantially reduced by executing lime burns in close proximity to the shell source and the construction site.

**Conclusion**

Cumberland Island is a barrier island. As such, sea shell is ubiquitous. However, shell that has been subjected to heat high enough to reduce portions of sea shell to lime putty is very rare. Therefore, the fact that we recovered shell exhibiting evidence of lime putty formation, in association with ashy deposits containing bits of charcoal, is highly suggestive. We have concluded that the area tested may well have been the location of a rick to manufacture lime for use in the construction of Dungeness and/or ancillary structures such as the Tabby House.

The results obtained in this study are at once informative, and provocative. There is a very strong likelihood that the area we tested corresponds to the former location of a lime rick. The size and content provide some confirmation of the historical record regarding the scale of lime production during the late-18th and early-19th century. The results reported here are provocative in the sense that definitive proof that a lime midden has been found must await future research.

Knowing, with certainty, that the feature examined here is in fact a lime midden will require more invasive strategies than we had at our disposal. Questions remain, and the door is open to exciting research in the future.

**Notes**

5. Ibid.
9. Ibid.

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**Tabby Publication Now Available on the Web**

The Historic Preservation Division of the Georgia Department of Natural Resources is pleased to announce that the proceedings from *The Conservation and Preservation of Tabby: A Symposium on Historic Building Material in the Coastal Southeast* are available on the Internet. This project was developed through a grant from the National Park Service’s National Center for Preservation Technology and Training.

Forty participants representing a variety of professional disciplines were invited to Georgia’s Jekyll Island during February 1998, with the common goal of preserving tabby resources. The proceedings from this meeting—individual papers and conclusions and recommendations developed by participants—are presented in this publication. It is hoped that this material will assist current stewards of tabby and spark the interest of scholars as they consider research topics. To view the symposium proceedings, visit the Historic Preservation Division’s (HPD) web site at [http://www.gashpo.org/dnr/histpres/tabby](http://www.gashpo.org/dnr/histpres/tabby).
Aberdeen Proving Ground Uncovers 17th-century Settlement of "Old Baltimore"

Located along the western shore of the upper Chesapeake Bay, the U.S. Army’s Aberdeen Proving Ground (APG) for the past 80 years has tested munitions, trained soldiers, and conducted highly innovative defense research. The 75,000-acre military reservation, originally established in 1917, is also home to an abundance of historic and prehistoric resources, including APG’s pre-military built environment and archeology sites. As part of its ongoing mission of environmental stewardship, the U.S. Army Garrison at APG complies with various cultural resource legal requirements, including the National Historic Preservation Act of 1966 (NHPA).

In accordance with Section 110 of the NHPA, APG established a cultural resource management program within its Directorate of Safety, Health & Environment. The cultural resource management program helps the Army complete its mission at APG by locating, evaluating, and protecting historic properties within the installation’s boundaries. In recent years, APG completed a cultural resource management plan and archeological predictive model. Both of these tools allow APG to manage its cultural resources more efficiently and effectively. Specifically, the archeological predictive model identifies known sites and areas of the installation that are considered high potential for intact archeological resources. Of all the known historic sites identified in APG’s archeological predictive model, the area known today as “Old Baltimore” (18HA30) promised to be one of the most significant sites in terms of local, state, and regional history.

Between the fall of 1997 and winter of 1998, APG’s Cultural Resource Management Program completed the Old Baltimore Research Project, an archeological investigation to locate and evaluate a 17th-century colonial site that served as the first permanent seat of government for Baltimore County, Maryland (later Harford County). With contracted technical support provided by R. Christopher Goodwin & Associates, Inc., of Frederick, Maryland, a firm specializing in cultural resource work, APG set out to answer the following question: Where was Old Baltimore located, and what, if anything, of the site was intact? With a lot of hard work and a little luck, the archeology team completed the project with much success and discovered a site that, by all indications, is eligible for inclusion in the National Register of Historic Places.

Before field work began, Goodwin & Associates conducted extensive historical research in the Maryland State Archives and at the Historical Society of Harford County. Focusing primarily on property ownership at “Old Baltimore,” the historians found original 17th-century land patents that identified the main property owners. As the records revealed, in the 1670s-1680s, the primary landholders in the area of “Old Baltimore” were James Phillips, a wealthy and prominent resident, and William Osbourne, the local Bush River ferry operator.

The researchers also discovered 18th-century court documents that detailed the tracts of land in and around the site. The project’s first
stroke of luck came when the researchers uncovered court documents from 1791, involving a long-standing property dispute between Phillips’ and Osbourne’s descendants. The papers proved to be the key to locating the site. The surviving court documents recorded the metes and bounds of the original Phillips and Osbourne properties. They also pinpointed the location of the original “courthouse land,” by referencing present-day landscape features, such as a family graveyard and nearby waterways.

While little documentary evidence actually survives, records do indicate that “Old Baltimore” thrived in the late 1600s as a center of county government and commerce. Originally called “Baltimore Town,” the site and surrounding region were first occupied in the 1650s by European colonists seeking fertile soil for tobacco farming. In 1671, the Maryland Governor’s Council appointed Baltimore Town as the first permanent seat of county government. Three years later, the colonial assembly commissioned construction of a courthouse and licensed the community’s first tavern. By 1683, the assembly designated Baltimore Town as an official tobacco port and appointed James Phillips and William Osbourne to complete the first survey of the town lands. Other records confirm the existence of a wharf and related facilities, most likely constructed in anticipation of increased commercial traffic.

Since the 1660s, “Old Baltimore” was home to James Phillips, one of the wealthiest and politically well-connected citizens in the county. In 1683, he received a license from the colonial assembly to operate a tavern out of his primary residence, presumably to serve those attending the court. Phillips was very active in the community, serving several times on the county court. Additionally, in 1688, he received the prestigious appointment of port officer with responsibilities for the weighing and inspecting of tobacco, the all-important cash crop, as well as tracking all other imports and exports. At the time of his death in 1689, Phillips’ surviving estate inventory indicated that his debtors owed him over 71,000 pounds sterling, a whopping sum in the late 1600s.

Following the archival work, the archeology crew went into the field with heightened expectations. Accompanied by members of the U.S. Army Aberdeen Test Center’s Explosives Ordnance Division, the team began surveying and excavating the seven-acre site amid scattered, unexploded ordnance, a common field hazard at APG. Exercising extreme caution and following established safety standards, the team thoroughly tested the restricted site with magnetometers before digging. During the excavation of over 420 shovel test pits, the crew encountered a high concentration of historic artifacts in one section of the project area. The artifacts included well-preserved ceramics, metal, glass, French and English gun flint, and faunal remains.

Then the project’s second stroke of luck hit. A crew member placed an individual shovel test pit directly on top of a sub-surface brick foundation, thus exposing the primary feature of the site—the remains of a late-17th-century dwelling. As a result of the find, the crew focused their attention on that area of the site, eventually placing several larger test units around the foundation. Upon exposing the feature, the archeologists measured a 20-foot section of brick wall and observed two centrally placed cross walls. Further excavation convinced the crew that the cross walls and heavily oxidized soil within them were the remains of a fireplace. All the artifacts recovered from around the wall dated to 1660-1700. In comparison with the archival information, the artifacts assured the crew that they had discovered the Phillips residence and tavern.

The team exposed a number of other archeological features near the wall, including several trash pits that were full of artifacts. Some of the
more noteworthy pieces from the site include: a copper alloy Charles II farthing (dated to the 1670s), a ceramic salt (a rare luxury item), a wine bottle with family crest (compares to one found at Jamestown), and a North Devon sgraffito slipware bowl rim sherd with sunburst motif. In all, the crew recovered over 17,000 artifacts from the site, of which a significant portion dated to the late-17th century. The surviving cultural material recovered from the tavern site and the other features examined, including well-preserved glass, ceramics, metals, faunal remains, and brick foundation, serve as clear evidence of James Phillips’ European-influenced lifestyle on the edge of the frontier. This conflicts with the long-standing assumption that the early settlers of the upper Chesapeake Bay were only small tobacco farmers, eking out an existence in the harsh wilderness.

The Army-sponsored excavation has generated a great deal of interest from the local media, community historians and archeologists, as well as the Maryland Historical Trust (the State Historic Preservation Office). In late December 1998, Baltimore Sun journalist Frank Roylance wrote a front-page story on the excavation, which was subsequently picked up by the Associated Press. The county historic preservation commission, local historical and archeological societies, as well as other members of the community, have expressed a sincere interest in a long-range interpretive plan for Old Baltimore, to include a permanent local display and heritage tourism component. Staff from the Maryland Historical Trust have visited the site and voiced their enthusiasm for the project as well. Although Old Baltimore is located in a restricted area at APG, the Army recognizes the need for adequate site protection. As a result of the media attention, the Army’s Conservation Law Enforcement Division has increased surveillance of the Old Baltimore site to ensure the area is properly monitored.

Above ground there is little that remains of Old Baltimore except for the early-19th-century Phillips family graveyard. However, below ground a wealth of information exists that potentially challenges the current understanding of early colonial settlement in the Chesapeake Bay. Aberdeen Proving Ground wishes to thank Chris Polglase, Dr. Tom Davis, and the many other Goodwin associates for their hard work and professionalism during the course of this compliance-based research project.

David G. Blick is the Cultural Resource Manager for the U.S. Army Garrison, Aberdeen Proving Ground, Maryland, under the Directorate of Safety, Health & Environment. The APG Cultural Resource Management Program received the Maryland Historical Trust’s 1998 Preservation Service Award.

Any opinion expressed in this article does not necessarily reflect the view of the Department of the Army.

Photos courtesy R. Christopher Goodwin & Associates, Inc.