CRM

CULTURAL RESOURCE MANAGEMENT
Information for Parks, Federal Agencies, Indian Tribes, States, Local Governments, and the Private Sector

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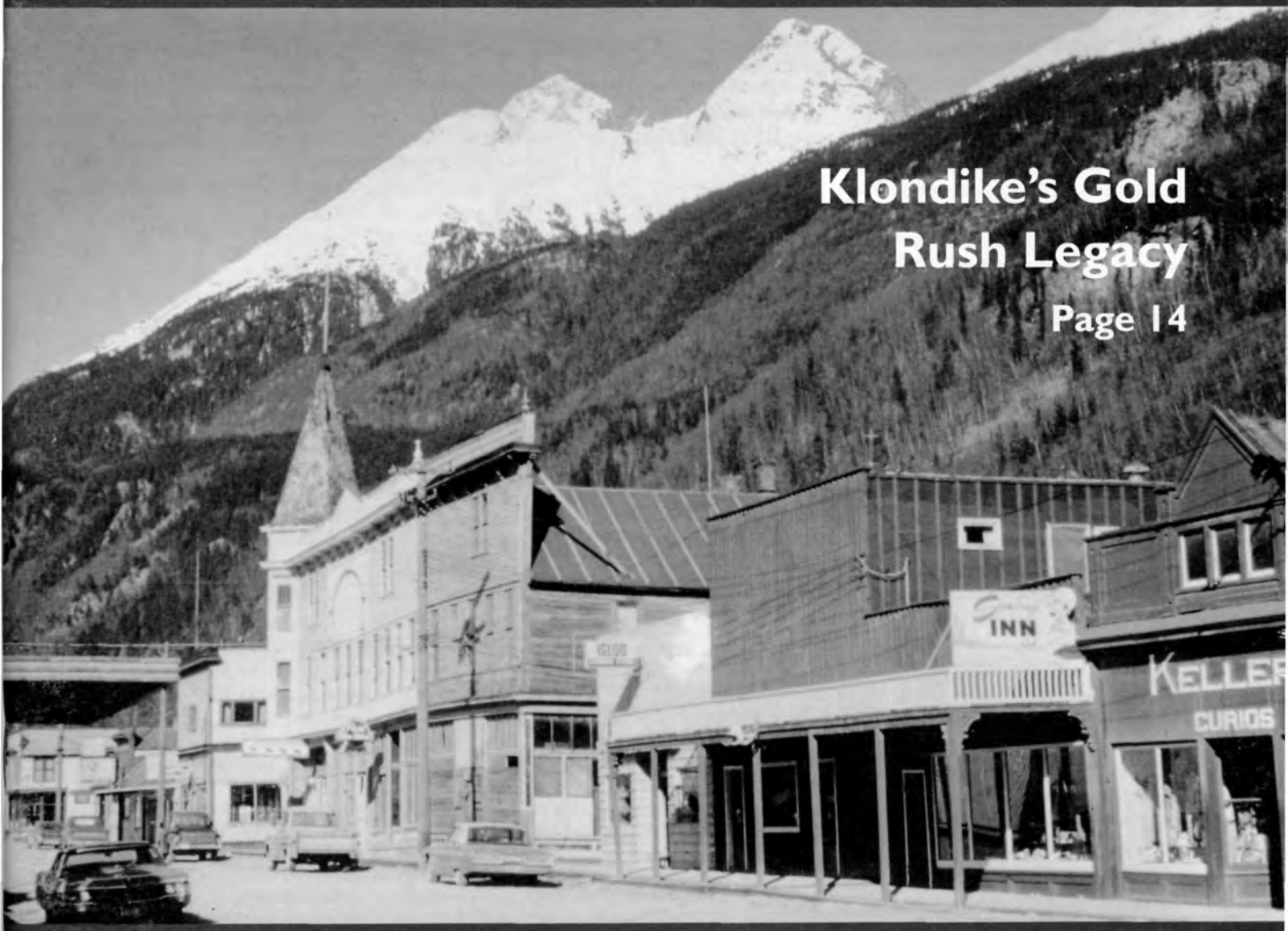

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U.S. DEPARTMENT OF THE INTERIOR
National Park Service
Cultural Resources

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To promote and maintain high standards for preserving and managing cultural resources

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Broadway Street, Skagway, Alaska, looking north from Third Avenue. The photo was taken in 1969, before restoration efforts had begun by either the private or public sectors. Photo courtesy Ted Swem Collection. See story, page 14.

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Departments

POINT OF VIEW

Letters

Dear Editor:

As Superintendent of Gettysburg National Military Park, I'd like to take a moment for clarification in my response to Eric Foner's visit to the park "Changing Interpretation at Gettysburg NMP," in the Slavery and Resistance issue of *CRM* (Vol 21, No.4). With sincere apologies to the interpretive staff here at Gettysburg, my remarks did not adequately describe the full range of programs offered by our interpreters, whose depth of knowledge, passion for the park, and dedication to the highest possible quality of interpretive services for our visitors are unsurpassed.

What also was not clear from Dr. Foner's letter is that he did not have the opportunity to attend any of the interpretive tours and programs offered by the park due to time constraints. His critique is solely devoted to interpretive media such as the static exhibits in the visitor center and the Cyclorama Center, battlefield waysides, and printed media. These exhibits form the baseline of our interpretive program, but Gettysburg offers much more for those who have the time. Our field interpretive programs do provide the context needed to tell the story of the Gettysburg Campaign within the context of American history. These programs address the larger issues and themes of the Civil War, including slavery, the black experience during the war, and impacts on civilians. This summer we offered programs such as The Civilian's War, Slavery to Soldiery, Casualties of War (a daily medical program), Men of Color: To Arms (the story of black soldiers' experience in the American Civil War), and the Civil War soldier (which examines why soldiers, Northern and Southern, fought and what motivated them).

We can't overlook the value of these excellent programs. The bad news is that because of tight staffing, many of our visitors do not experience them. For the many who, like Dr. Foner, spend a short time in the park and rely on interpretive media alone, we do not begin to tell the whole story. We hope to resolve that problem through the contextual interpretive displays in the new museum.

Dr. John A. Latschar
Superintendent
Gettysburg NMP

Dear Editor:

When I received the *CRM* issue, "The Information Ecosystem" (Vol. 21, No. 6), I was disappointed to note that architects, like myself, are not "players" in cultural resource management. Apparently, the same goes for landscape architects and planners.

It is difficult enough to get square-headed archeologists to accept the fact that the world doesn't revolve around them, but now NPS puts them at the top of the food chain (I initially thought the list starting on page 3 was alphabetical, but then I noticed that "historians" were slipped in between "curators" and "conservators"). Granted, there is a large number of archeologists doing field surveys of archeological resources and a large number of the environmental firms for which they do CRM under contract, but leaving out major "players" such as (preservation) planners, landscape architects, and architects is selling the professions and CRM short.

John Cullinane, AIA
John Cullinane Associates
Annapolis, MD

Dear Mr. Cullinane:

You are right, it would have been lovely to have had articles by architects, preservation planners, and landscape architects as well as the professions we featured in the issue. My list of professions was far from totally complete—there are perhaps 20 others which might have been mentioned in an exhaustive list. You are also right about the historians being out of alphabetical order, not surprising since they so often refuse to stay in the places society allocates them. They are frequently a surprising profession.

Frankly, we ran out of space before we ran out of excellent articles. Each of the featured writers wrote so eloquently—not to mention profusely—that we could not bring ourselves to slash their excellent work in order to look for additional articles from other professions on speculation. This is a topic that raised a lot of passion in our writers. It is good to see that the topic arouses passion in those who read it also.

CRM always welcomes additional articles on such topics. Since you clearly know of people in these fields who would want to write on how preservation planners, architects, and landscape architects are dealing with the evolving world of data, information, knowledge, and the electronic information ecosystem evolving before our eyes,

please do so. I will look forward to reading your articles.

Diane Vogt-O'Connor
Guest Editor

Dear Editor:

CRM Vol. 21, No.2, lists historical research projects in the National Park Service. Inasmuch as other ethnographic projects are listed, I would like to point out a major omission.

Petrified Forest, El Morro, and El Malpais have a joint two-year Ethnographic Overview project under way with seven related (associated) tribes. The University of Arizona has completed two of five tasks. Approximately one third of the Intermountain Region's Ethnographic funds went to this project in 1997. Clustering projects such as this should receive some press to encourage others to look into this cost-effective approach.

Ken Mabery
Management Assistant
Resource Stewardship
El Malpais National Monument, NM

Correction

The credit line for the photograph, "Mutiny Aboard the Amistad," by Hale Woodruff (*CRM*, Vol.21, No. 3, p. 45) should have read, "Talladega College Archives, Talladega College, Talladega, Alabama. The editors apologize for the error.

Dear Editor:

I looked forward to receiving the issue of *CRM* devoted to Shenandoah National Park because I was aware that my photographs of the vista clearing at The Point Overlook (Milepost 55.6) in Shenandoah had been selected for publication.

I am very gratified to see my work in print on page 21 of Vol. 21, No. 1, and I appreciate your courtesy in crediting the photographs on that page to me. I cannot, however, take credit for all the photographs on that page, since I did not make the two photographs of Milepost 6.0 which appear at the top of the page. My work was confined to the Central District of the Park between Mileposts 31.6 and 65.5. Perhaps the photos of Milepost 6.0 were made by Mary Lowe, who provided the other photographs from that area of the Park.

In fairness to the person who did make the photographs of Milepost 6.0, you may wish to consider running a correction in the *CRM*.

John F. Mitchell

***Editor's Note:** The photos of Milepost 6.0 were made by Mary Lowe.*

Hydroelectricity and the FERC 106 Process—A View from the West

James C. Williams

Since 1966, electric power companies renewing hydroelectric project licenses with the Federal Energy Regulatory Commission (FERC) have had to identify and mitigate adverse impacts on significant cultural resources in compliance with Section 106 of the National Historic Preservation Act (NHPA). Because most of hydroelectric projects originally were licensed for 50 years, the hydro facilities themselves also are often eligible for listing on the National Register of Historic Places. However, because hydropower facilities are in continuous use, NRHP eligibility poses latent operational dilemmas. The FERC 106 process is, therefore, important for electric power companies, and California's experience with it reveals much about how the process works.

Historically, California is one of the America's most important hydroelectricity regions. The region developed hydropower early and distinctively, leading the national industry in high-head turbine development and long-distance power transmission. Hydropower helped put California into America's post-industrial vanguard, yielding an average of 80% of the state's electric power between 1900 and 1950 and providing a foundation for the microwave electronics industry.[1] Today the state's two major electric utilities, Pacific Gas and Electric Corporation (PG&E) and Southern California Edison Company (SCE), own and operate over 70 pre-1945 hydroelectric powerhouses—10% of the national total. Thus, California's historic hydropower facilities are an important part of the state's energy system as well as being historical resources themselves; however, addressing this dual importance in the relicensing of these resources under FERC has uncovered serious flaws in the FERC 106 process.

The first FERC 106 process shortcoming involves understanding the historical context on which evaluation and findings of significance for individual site resources depend. In California, one must understand hydroelectricity's role in the state's broader history as well as specifically know the distinctive characteristics of hydropower development within the region. But, since there are no historical context studies for the state's hydropower, a chicken and egg situation exists: one cannot properly evaluate individual sites without context, and one cannot get context until enough individual sites have been studied. Because utilities as well as state and federal agencies have not called for completion of context studies, FERC relicensing projects during the 1970s and 1980s were approached on a case-by-case basis that lacked a framework for anything but meager efforts at assessment of historical resources and resulted in less than adequate hydropower resource evaluation and mitigation.

Before the 1990s, few historical studies were helpful in developing some sense of context.[2] But recently the independent course of scholarly historical inquiry has started addressing the issue of context,[3] illustrating ever more clearly how California's electric power history involves internationally significant developments in fields such as high-head hydropower, long-distance power transmission, rural electrification, marketing, and

resource conservation and regulation. Thus, one now can approach the FERC 106 process with a presumption that many portions of the region's pre-1945 hydroelectric power complexes potentially will have NRHP significance. Nevertheless, the chicken and egg situation still largely remains, for no comprehensive context study of California hydroelectricity exists against which to measure individual sites and resources for historical significance and preservation worthiness.

A second problem in the FERC 106 process that contributed to inadequate assessment of historical hydropower resources is one that seems to be endemic to the general practice of CRM. After over 30 years of historic preservation under the NHPA and over 20 years since the public history movement emerged, there is still no guarantee that professional historians, competent in the subject matter, are doing the research and evaluation required under the 106 process. CRM is widely characterized by historianless history.[4]

When the NHPA 106 process was initiated, archeologists and anthropologists, prepared through salvage archeology experience to complete site-specific surveys, quickly assumed title as "the" cultural resources specialists, while historians remained comfortably in the academy. From the start, non-historians dominated the field, as cultural resource contractors and as the client and regulatory agency personnel who let contracts and reviewed results. Not surprisingly, when power companies needed cultural resource specialists, they hired archeologists, who, in turn, contracted for surveys and resource assessments with archeologist-headed cultural resource firms.

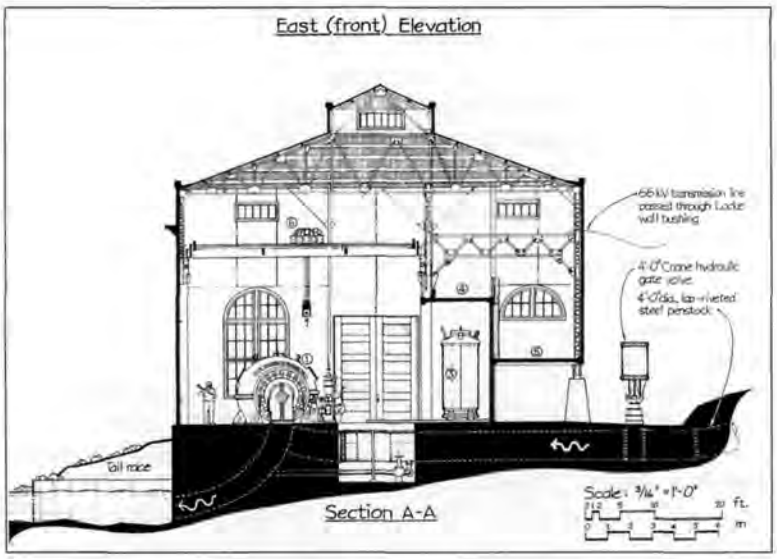
In their work, the CRM specialists followed their disciplinary interests. Little history was done, and no specific requirements were placed on consultants to employ competent professional historians. When project managers asked for history, contractors gave the title "project historian" to non-historians who then did what they could.[5] And, when management of NRHP-eligible historical projects called for professional monitoring, archeologists were assigned the job.[6] To be sure, important historical resources were identified and some presentable project overviews written, but few, if any, of non-historians doing this work possessed sufficient competency in the historical issues being investigated to meet the professional standards implied in the 106 process.

Unfortunately, despite the passage of time, historianless history persists in CRM. It remains a major failing of the 106 process, and neither industry nor regulatory agencies have been willing to confront the problem. Indeed, despite relentless lobbying by the history profession, even the Secretary of the Interior's proposed changes for professional qualification standards for historians continue to be less rigorous than standards for other CRM professionals.[7] Like existing standards for professional historian status, proposed ones accept undergraduate degrees in closely related fields plus experience rather than mandating either a graduate or undergraduate degree in history, whereas both existing and proposed standards for archeology demand a graduate degree. In effect, the Secretary of the Interior's standards for history give professional standing to the very non-historian project historians who have been doing scrimpy history for so many years.

Finally, even when significant historical features are assessed by competent historians, mitigating adverse effects to them over time run up against the financial interests of the power companies themselves, and the 106 process seems unable to protect resources. To protect its business interests, for example, Southern California Edison has embraced "continuity of use." Conceived by CRM consultants as an honest way to deal with working features in hydro resources, "continuity of use" expands the idea of "replacement in kind" for still-operating historical hydro facilities.[8] It legitimizes, for example, the replacement of an old wooden flowline with steel pipe because both conduit types perform the same task and the plant is in continuous operation. "Function" thus becomes as much a part of historical integrity as location, setting, design, workmanship, materials, association, and feeling. Consequently, managing an operating hydropower project by "continuity of use" means making the primary preservation objective the efficient, cost-effective maintenance of project elements in relationship to the system as a whole.[9] As a result, removal of resources that become a financial or operational liability is justified as standard practice.

Rush Creek Power House.

"Continuity of use" allows SCE to demolish almost any historical resource on a hydro project. With the concept denoted in management plans and HABS/HAER recordation specified as the generic mitigation measure, SCE has set upon a path of recordation and demolition of historic structures. This is evident particularly at the Bishop Creek Hydroelectric System Historic District and the Rush Creek Historic District where, since 1990, hydro plants have been "automated for efficient operation." At both plants, unused housing



Coleman Power House was erected in 1911 in Shasta County, California. It was the last and largest of four powerhouses in the Battle Creek System. Its steel-framed, reinforced concrete construction differed architecturally from the other three, as did its hydraulic equipment. Instead of the usual single phase transformers, three phase transformers were located in bays on the ground floor. Drawing by Sands S. Weems IV.

facilities have been removed, and, because the management plans allow it, the California State Historic Preservation Officer, with little comment and no consideration of the importance of these resources to larger historical questions, simply issued what one SHPO staff member calls "demo memos."[10] Moreover, with these contributing resources gone, there is little to stop SCE, in the future, from using their absence, in combination with its bottom-line interests, to rationalize demolishing the rest of the resources.

It would be all too easy to cast blame on power companies for the demise of significant historical hydroelectricity resources (and they do deserve some chastening), yet power companies only have addressed the issue at all within the context of regulation. Therefore, I am convinced that crucial flaws in the FERC 106 process—lack of any requirement for developing real historical context, the toleration of historianless history, and ineffective guidelines and standards for mitigating adverse effects—must be corrected if historically significant hydroelectricity resources are to be preserved. One only hopes this will be done before the resources are gone.

Notes

1 James C. Williams, *Energy and the Making of Modern California* (Akron, OH: University of Akron Press, 1997).

2 Robert C. Catren, "A History of the Generation, Transmission, and Distribution of Electrical Energy in Southern California" (Ph.D. diss., University of Southern California, 1951); Charles M. Coleman, *P.G.&E. of California: The Centennial Story of Pacific Gas and Electric Company, 1852-1952* (New York: McGraw-Hill, 1952); Thomas Parke Hughes, *Networks of Power: Electrification in Western Society, 1880-1930* (Baltimore: Johns Hopkins), 1983.

3 Donald C. Jackson, *Building the Ultimate Dam: John S. Eastwood and the Control of Water in the West* (Lawrence: University Press of Kansas, 1995); William A. Myers, *Iron Men and Copper Wires: A Centennial History of the Southern California Edison Company* (Glendale, CA: Trans-Anglo Books, 1983); Williams, *Energy and the Making of Modern California.*

4 Arnita A. Jones, "Practicing History Without a License," *The Public Historian*, 10 (Summer 1988): 59-69; Kenneth N. Owens, "Historical Resources Management in a Growth State: California" in *Cultural Resources Management*, edited by Ronald W. Johnson and Michael G. Schene (Malabar, FL: Krieger Press, 1987), pp. 184-186.

5 For example, Valerie H. Diamond and Robert A. Hicks, *Historic Overview of the Rush Creek and Lee Vining Creek Hydroelectric Projects* (Fair Oaks, CA: Theodoratus Cultural Research for Southern California Edison Company, 1988).

6 Thomas T. Taylor, "Cultural Resources Management Plan for Southern California Edison Company's Kern River No. 3 Hydroelectric System, Kern and Tulare Counties, California, FERC Project No. 2290" (Rosemead, CA: Southern California Edison Company, May 1991).

7 "The Secretary of the Interior's Historic Preservation Professional Qualification Standards," *Federal Register*, June 20, 1997 (62 FR 33707).

8 Robert Clerico and Ana Beth Koval, *An Architectural and Historical Evaluation of Structures Associated with the Bishop Creek Hydroelectric Power System, Inyo County, California* (Silver City, NV: Intermountain Research for Southern California Edison Company, 1986), National Archaeological Data Base Document No. WRO-CA-08-1160161. "Continuity of use" as it evolved at SCE is described in Duncan Hay, *Hydroelectric Development in the United States, 1880-1940* (New York: Edison Electric Institute, 1991), v. 1, Appendix B.

9 David R. M. White, "Proposed Management Plan for Historic and Archaeological Resources Associated with the Historic and Archaeological Preservation Plan for the Bishop Creek Hydroelectric Project (FERC Project 1394), Inyo County, California," (Rosemead, CA: Southern California Edison Company, January 1989) and "Management Plan for Historic and Archaeological Resources Associated with the Rush Creek

Continued on p. 52

Features

Gary Somers and Ted Birkedal

National Park Service Archeology Programs in Alaska

The Big Picture

When ones thinks about the national park areas in Alaska, great size and wilderness often come to mind—and for good reason. Two thirds (over 54 million acres) of the acreage in the national park system is in Alaska and 62% of that acreage (almost 34 million acres) is wilderness. Road access to the parks is either non-existent or very limited. Except for Sitka and Klondike Gold Rush National Historical Parks it is very easy to think of the Alaskan parks as wild nature preserves. Many, including some National Park Service employees, do think of them in that way. Nothing could be farther from the truth, however. Cultural resources are an integral part of all national park units in Alaska, and are specifically referenced in the enabling legislation for most of them.

The prospect of identifying and understanding the archeology of over 54 million acres of land ranging from the northwest coast to interior Alaska to the Arctic and from sea level to over 20,000 feet is daunting, to say the least. In terms of acreage, that is the equivalent to surveying all of the state of Utah, the 13th largest state in the nation. Combine this fact with the very short field season in most of the parks and you have identified many lifetimes of work for more archeologists than are currently employed by the National Park Service. These facts have influenced our approach to conducting archeological investigations in the parks in Alaska.

The large size and remoteness of most of the parks in Alaska can cause serious logistical problems for archeological crews. The plane delivering archeologists to Bering Land Bridge National Preserve had a disagreement with the beach landing site.

In the early years of Alaska NPS archeology, there was no consistent source of dollars for archeological inventory, nor a systematic approach to the overall conduct of archeological research. At that time there were no archeological overviews and assessments to guide research directions, priorities, or methods. The usual approach to large-scale inventory was to select a target park for survey and hire a team of seasonal archeologists for the summer. The crew chief was usually hired in May to write the research design prior to launching field operations in June. Crews would return from the field in mid-August and the crew chief would attempt to write up a report on the findings by the end of September when he or she would be let go until the following spring, if the project involved more than one season. With this approach there was little consistency in the reporting of results or the quality of reporting. It was frequently difficult to relate one piece of survey work to the next and often a challenge to relate one year of work to subsequent years, even in the framework of a single project. This tendency toward fragmentation and inconsistency in approach was even more evident in Section 106 compliance projects which tended to be smaller in scale and were usually performed within tight monetary and time constraints.

In general, when archeological sites were threatened either by natural forces or human action it frequently proved difficult to assess significance or determine which sites merited priority status with regard to special protective measures or data recovery. Lacking overarching contextual frameworks from which to judge what level of mitigation or protection was appropriate, we sometimes spent more dollars than necessary on sites that did not deserve the attention and other times much less on sites that did deserve extra effort

As we approached the 1990s in Alaska, we could claim to have active inventory, testing, and data recovery projects, but no archeology program as a whole. Progress toward a coherent program was fitful and our ability to advance the cause of

Archeological survey at McArthur Pass, Kenai Fjords National Park, after the Exxon Valdez oil spill. Note the darker, oiled rocks along the shoreline.

archeological preservation with park management had begun to stall. What is more, the involvement of outside cooperators was nearly nonexistent as were our consultative relationships and partnerships with the Alaska Native community. Without change we would soon be awash in a sea of ill-described lithic scatters and other sites of unknown significance and meaning.

One of the first corrective steps we took was to exercise the option of year-round hire to facilitate the completion of archeological projects. Secondly, we placed a major emphasis on the production of archeological overviews and assessments for all the parks. The first Alaskan overview and assessment, for Yukon-Charley Rivers National Preserve, was completed and published in 1988, and we currently have overviews completed or progress for 12 of the 15 major park units.

The thematic nature of the Cultural Resource Mining and Minerals Inventory, a lawsuit-driven Section 106 compliance survey which focused on all parks with active mining claims, also helped to turn the tide. This well-funded, multi-park project began in 1985 and over the next 10 years gathered a vast, unified archive of comparable archeological data on hundreds of historic mining sites scattered throughout the majority of Alaska's parks.

Another opportunity for change was provided by special funding for the Beringian Heritage International Park. Starting in 1991, dollars channeled through the Shared Beringian Heritage Program enabled us to provide a geomorphological and paleoecological context to the archeological sites of the Bering Land Bridge National Preserve. From the start, this program relied heavily upon the cooperation and common vision of a wide variety of disciplinary specialists located in educational institutions around the nation.[1] In addition, the program provided the stimulus and means for the incorporation of traditional Native knowledge in the archeological story, and it actively promoted the sharing of information with the public.[2] As it turned out, the approach taken in the initial years of the Shared Beringian Heritage Program proved to be a harbinger of the archeological future.

In late 1992, the National Park Service began the Systemwide Archeological Inventory Program (usually referred to as SAIP), whose goal "is to conduct systematic, scientific research to locate, evaluate, and document archeological resources on National Park System lands."[3] In 1989 the Exxon Valdez oil spill impacted portions of Kenai Fjords National Park and Katmai National Park and Preserve. The efforts to assess and mitigate the impacts of this spill clearly demonstrated that the National Park Service knew very little about the cultural resources present along those coast lines. In an effort to address that lack of information, the first SAIP-funded program undertaken in Alaska was a multi-year, multi-park archeological survey designed to identify and record archeological resources in select portions of the coastal areas of five parks (Kenai Fjords, Katmai, Glacier Bay, Lake Clark and Wrangell-St. Elias) and to assess the potential for other portions of the coasts to contain significant archeological resources.

In many ways this project has set the standard for SAIP projects in Alaska. It has been a cooperative effort among the National Park Service, the Smithsonian Institution, USGS, and the University of Alaska. It involved working with park employees and local Native Alaskan groups to increase the local interest in archeology and the resources that were found. It involved developing research designs, preparing professional final reports, and conducting top quality research archeology in a resource management arena.

In fiscal years 1993 though 1997, archeological inventories and evaluations have included 34 surveys, at least one of which was conducted in every park unit in Alaska, and six archeological overviews and assessments. A total of 34,600 acres have been surveyed, 923 new sites have been recorded and 606 sites have been evaluated. While we are proud of these accomplishments, 34,600 acres represents only 6/100 of a percent of the National Park Service land in Alaska. There are many archeological careers yet to come in the National Park Service in Alaska before we can begin to see our archeological inventories as complete!

In addition to the inventories, we have conducted 11 testing and data recovery projects in six parks. They have ranged from the multi-year, multi-park SAIP survey mentioned previously to the first systematic archeological survey in Aniakchak National Monument and Preserve.

They have included the first archeological survey in the Alagnak Wild River area, the first extensive archeological survey focused on identifying prehistoric sites in Wrangell-St. Elias National Park and Preserve, and collaboration with Native Alaskans on surveys and excavations in Glacier Bay National Park and Preserve, Noatak National Preserve, and Katmai National Park and Preserve.

The biggest change that has taken place in the archeological programs in the last five years is that the staffs in the parks have become much more significant players. In the past, nearly all the archeological studies were carried out or coordinated by staff in the Regional Office in Anchorage. Now, most of the archeological studies are conducted or overseen by archeologists directly in the parks. This has increased the visibility of archeological programs in the parks and has increased the level of commitment to archeology by the park managers. It has also made coordination of the overall program in the region more difficult. Overall, however, we think the change has been positive. If park managers always see archeology as something that is done by someone else in another office and as something that has no direct connection to management of the park and its resources, then it is no wonder that archeological resources are perceived as being of lesser importance than biological resources, park operations, and building maintenance.

Clearly, there is no reason to ever archeologically survey the entire acreage of every park in Alaska. Even if it made sense archeologically, and it does not, the costs would be prohibitive. At $84 an acre, which has been the average cost of surveys over the last five years, it would cost almost 4.6 billion dollars to survey all of the National Park Service acreage in Alaska. Therefore, we have staff assigned to developing research designs for three parks, Denali National Park and Preserve (over 6 million acres), Gates of the Arctic National Park and Preserve (almost 8 1/2 million acres), and Wrangell-St. Elias National Park and Preserve (over 13 million acres). The purpose of the research designs will be to take all relevant factors and existing data and develop a stratified universe for each of the parks. This stratification will identify those areas that have the highest potential to contain archeological sites as well as those areas that have the highest potential for sites that could be adversely impacted by natural and human causes. These research designs will then be used to develop project statements for future work.

In addition, because of the success of the multi-park, multi-year coastal archeological survey project, we are exploring new ways for staffs in the parks and the Alaska Support Office to cooperate on archeological projects in the future. These could be linked along geographical or thematic lines. The bottom line is, regardless of the progress we have made, unless we continue to refine the process of how we go about conducting archeological studies, and keep improving our efforts to work together, both within the National Park Service and with our collaborators, our archeological programs are doomed to fail. We do not intend to let that happen.

Archeological test excavations at the Irwin Sluiceway Site, an Early Man site in the upper Anisak drainage in Noatak National Preserve. This project was a collaborative effort between the national Park Service and the Smithsonian Institution.

Notes

1. Jeanne Schaaf, "Understanding Northern Environments and Human Populations Through Cooperative Research: A Case Study in Beringia" in *Human Ecology and Climate Change: People and Resources in the Far North*, edited by David L. Peterson and Darryll R. Johnson (Taylor and Francis, Washington, DC, 1995), pp. 229-244.
2. National Park Service, *Ublasaun: Inupiaq Hunters and Herders in the Early Twentieth Century, Northern Seward Peninsula, Alaska*, National Park Service, Anchorage, Alaska, 1996.
3. Michelle Aubry, Dana C. Linck, Mark J. Lynott, Robert R. Mierendorf, and Kenneth M. Schoenberg, *Systemwide Archeological Inventory Program*, National Park Service, Washington, DC, 1992.

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Ted Birkedal is Team Manager, Cultural Resources Team, Alaska Support Office, Anchorage.

This article is a condensed version of a paper presented at the 63rd Annual Meeting of the Society for American Archaeology in Seattle, March 25-29, 1998.

Photos courtesy NPS.

Richard VanderHoek

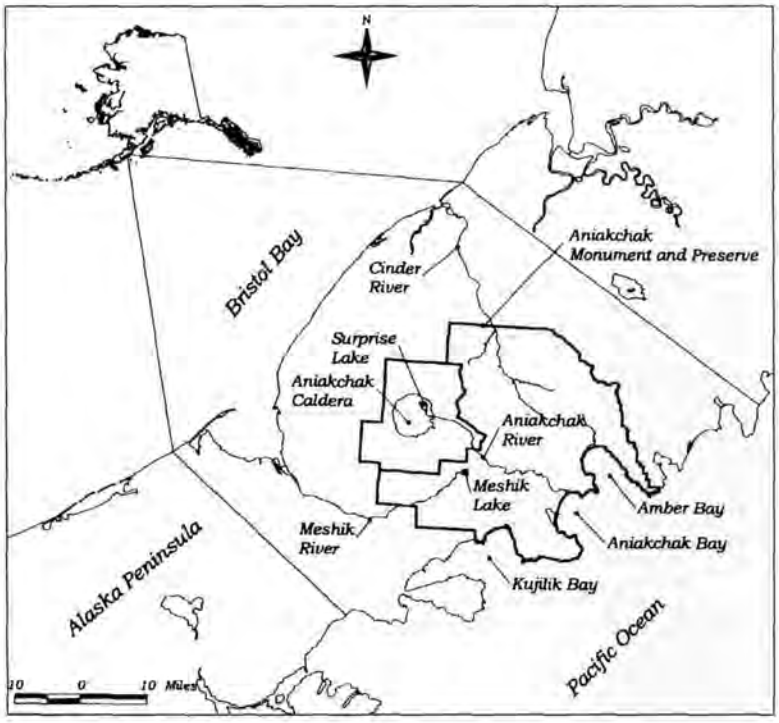
Fire and Flood

Archeological Survey in the Dynamic Aniakchak National Monument and Preserve

Aniakchak National Monument and Preserve is centered around Aniakchak Caldera and Aniakchak River on the lower Alaska Peninsula. The Alaska Peninsula is an arm of land in southwestern Alaska that reaches toward the Aleutian Islands, sharing with them a stormy climate and bountiful marine resources. The Yupik Eskimo, Aleut, and Alutiiq people who inhabited the region in the past made expert use of these resources, as do their descendants today.

The monument and preserve owes its existence, in part, to the popularization of the Aniakchak Caldera by the exploration and writings of Father Bernard R. Hubbard. Also known as "the Glacier Priest," Hubbard was a Jesuit professor who visited the area in the 1930s. It was an article about Hubbard written during this time that caught the eye of former NPS Director Horace M. Albright, who initiated the process that culminated in 1980 with the signing of the Alaska National Interest Lands Conservation Act. This established the Aniakchak National Monument and Preserve at its present boundaries.

Alaska Peninsula with Aniakchak National Monument and Preserve. The Monument encompasses the caldera, while the Preserve includes the Pacific coast and major river systems. Map by William Lee.



Catastrophic volcanic events define Aniakchak National Monument and Preserve, and must be understood to put the search for past human habitation of the region in perspective. The Aniakchak Caldera was formed approximately 3,400 years ago with the eruption of the Aniakchak stratovolcano. The resultant pyroclastic flow, which extended as far as 50 kilometers away, covered low-lying valleys close to the mountain with up to 75 meters of ash. Ash flow exposures have been found along both the Bering Sea coast north of the caldera as well as sections of Aniakchak and Kujulik Bay on the Pacific coast in the south, indicating flow movement over mountain passes 260 meters high in the Aleutian Range. The explosion formed a caldera that slowly filled with water, resulting in a lake over 160 meters deep and approximately 38 square kilometers in size. Sometime between 3200 and 900 B.P. another eruption caused the catastrophic draining of the lake, cutting a 300-meter deep notch in the caldera wall and forming the modern channel of the Aniakchak River. These events undoubtedly had a profound effect upon the prehistoric inhabitants of the region, and were taken into account when planning an archeological research strategy for the monument and preserve.

The central Alaska Peninsula has historically received little archeological attention, consequently a cultural history for the monument and preserve is unknown. The only archeological surveys in the monument and preserve before 1997 consisted of one day's survey and testing on the single previously known archeological site near the mouth of the Aniakchak River, and a brief multidisciplinary survey of the Preserve's intertidal area performed after the Exxon Valdez oil spill. The lack of archeological attention for the area is not surprising, given the current low population, severity of climate, and expense of transporting and operating crews in this remote region. It was because of this dearth of information that the National Park Service instituted a four-year research project in 1997 which included two years of archeological survey of the Aniakchak National Monument and Preserve. Its purpose was to obtain baseline information on the historic and prehistoric use of the

Aniakchak Bay with sow brown bear with cubs in foreground, and vegetated paleo beach berms and relic island landform in background. Photo by Mike Hilton.

region for consideration in NPS management decisions and operations, in compliance with NPS management responsibilities as outlined in Section 110 of the National Historic Preservation Act.

Survey during 1997 and 1998 included shared use of a USGS helicopter and zodiac and kayak transport to survey a variety of locations in the interior and on the Pacific coast. Approximately 2,000 acres of Monument and Preserve were surveyed at a reconnaissance level for evidence of past cultural activity, with subsurface testing in high probability locations. Thirty-five additional archeological sites were found and extensively documented, including seventeen prehistoric, fourteen historic, and four with both historic and prehistoric components. Seven prehistoric sites that could be considered villages (locations with more than five housepits) were discovered, two of them with actively eroding midden.

Considerable time was invested in 1998 collecting geomorphic data to establish ages for the catastrophic flood and the formation of the suite of beach dunes at the heads of the bays, and in archeological testing to find sites below the 3400 BP eruption, for it is the interaction between these dynamic events and the human population of the region that is of greatest scientific and popular interest.

The catastrophic flood is important both because of its potential impact on the villages in the region, and on the development of the Aniakchak River's important sockeye salmon run. Because of the salmon's need to spawn in a lake, the salmon run must have developed after the flood and resultant modern caldera lake. Dating of the catastrophic flood is currently in progress, utilizing tephra (airfall volcanic ash) samples collected from various age landforms, wood and shell samples collected from the base of dunes, and peat cores from old flood channels.

Early results from the project are encouraging. Radiocarbon evidence collected in 1997 shows the contemporaneity of village sites located at the mouth of the Aniakchak River and at Meshik Lake, which together with a previously discovered village site on the lower Meshik River suggest that at 1300 BP this corridor constituted an important travel route across the Alaska Peninsula. Geomorphic work on beach dune formation suggests that several village sites were closer to the coast when occupied, with their current location up rivers and in lagoons an artifact of subsequent beach dune formation. Tephra samples collected from dated sections over the last two years are being used to develop a regional tephra chronology. Locating pre-3400 BP sites has proven less productive. Due in part to the difficulty of testing through the two to three meters of reworked pyroclastic flow that usually covers high-probability early locations, no sites have yet been found that predate 2000 BP.

Artifact and faunal samples collected in 1998 are beginning to delineate past regional cultural affinities and subsistence practices. Analysis of the accumulated data from the 1997 and 1998 archeological field seasons will allow better management of the cultural resources of Aniakchak National Park and Preserve, as well as greatly increase our knowledge of the history and prehistory of this little-known region.

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NPS employee Mike Hilton in Aniakchak Caldera, with Surprise Lake in the background. Notch in caldera's far wall, approximately 1,000 feet deep, is outlet for the lake. Photo by the author.

Douglas Beckstead

Gold Ship on the Yukon River

The Coal Creek dredge lies dormant approximately one mile south of the Yukon River between Eagle and Circle, Alaska in Yukon-Charley Rivers National Preserve. It is like a dinosaur that once devoured the earth searching for gold. The dredge and its sister dredge on Woodchopper Creek, five miles to the east, are the only gold dredges under NPSs jurisdiction and protection.

Dredges represent the end of a long chain of technological developments in man's never-ending quest for gold. Gathering gold fortuitously caught in riffles and cracks of bedrock in a streambed eventually gave way to the pick, shove, and gold pan; then to sluice boxes and rockers; and from there to hydraulic methods of washing large quantities of material into sluices to separate the gold. Finally, everything was combined into the equivalent of a large, floating factory capable of digging two to nine (or more) cubic feet of material with each bite, then processing it through a revolving screen, washing the fine materials over sluices where the gold was captured in man-made riffles. Today open-pit mines in Alaska, Canada, Australia and South Africa use techniques involving giant earthmoving equipment and chemical processing that were not only unknown to, but most likely beyond the wildest dreams of early prospectors.

History of the Coal Creek Dredge

Miners staked the first placer mining claims along Coal Creek in 1901. Like most prospectors, early miners in the area were content with simply working their claims to supply themselves with enough money to continue into the next season. The real value of claims was found when mining companies bought out the small "pick and shovel" miners and brought in big equipment to work the claims.

Realizing the value of the placer deposits in Coal Creek, General Alexander Duncan McRae, along with Ernest Patty (later president of the University of Alaska), Ira Joralemon, and Charles Janin, began actively investigating and purchasing interests in the Coal Creek claims in 1934-35. Charles Janin, one of the foremost dredge experts of the day, figured the best way to develop the claims would be with a small to medium sized dredge.

After forming Gold Placers Incorporated, a dredge was ordered from the Walter W. Johnson Co. of Oakland, California, to be delivered to Coal Creek, assembled and ready for production during the 1936 season. The Coal Creek dredge represents a departure from traditional design. While most had wooden hulls, this one was designed to float on compartmentalized steel pontoons. This allowed it to better withstand the forces of ice during the long winter months.

After the dredge was constructed in Oakland, it was disassembled, crated, and loaded aboard a steamship headed for Skagway, Alaska, where it was then loaded onto the White Pass & Yukon Route Railway for transport to Whitehorse, Yukon Territory, Canada. From there, the dredge was loaded onto a steamboat and carried down the Yukon River to the riverboat landing at Coal Creek. Although transportation may not seem to have been much of a problem, before the dredge could be crated, it was necessary to measure each and every tunnel along the WP&YR to make sure the cargo would fit.

After arriving at Coal Creek, the dredge presented a new challenge to the company—moving 400 tons of steel off the riverboat without the use of heavy lifting equipment. Using a series of pulleys, rollers, ramps and Caterpillar tractors from the camp, the crew was able to off-load the dredge parts. Then they moved the pieces approximately seven miles upstream to the waiting dredge pond where they assembled the pieces.

National Register Status

The Coal Creek Historic Mining District was listed on the National Register of Historic Places in 1995. The district encompasses the lower eight miles of Coal Creek, ending at Slaven's Roadhouse

The superstructure and interior mechanisms of a stacker-type dredge. The digging ladder attaches to the bow (right) and the stacker at the stern (left).

This 1936 photo shows the Coal Creek dredge just before completing construction with the major components in place. The digging ladder and bucket line (left) are in place and the framework for the stacker (right) is beginning to take shape.

on the Yukon River. The buildings, dredge, water system, tailings piles, and other mine engineering sites and objects together represent Alaska placer mining operations of the 1930s. Joining the Coal Creek Historic Mining District on the Register is the James McGregor Cabin (built by an early prospector on Woodchopper Creek) and Slaven's Roadhouse, built between 1928 and 1930 by Frank Slaven, an early claimant on Coal Creek. These two sites are part of the Yukon River Lifeways Thematic Nomination (1987). The roadhouse has been the focus of NPS rehabilitation and stabilization projects for the last five years. It is a readily seen landmark on the banks of the Yukon. People floating the river frequently use it as a stopping place, whether to enjoy the historic mining district upstream or to simply dry out and get warm. Yukon-Charley staff provide an unofficial checkpoint at the roadhouse during the 1,200-mile Yukon Quest International Sled Dog Race each February.

Maintenance and Preservation

For the most part, mining companies viewed dredges and other heavy equipment as "disposable." Once the gold ran out, they simply left them where they stopped and walked away. As a result, many derelict hulls are scattered throughout Alaska and the Klondike. Buckets scavenged from abandoned dredges, some weighing half a ton or more, are popular landscaping features for businesses and homes in Nome, Fairbanks, Anchorage, and Dawson. In the case of the Coal Creek dredge, which originally cost $156,000 and in its 26-year life recovered nearly three million dollars in gold, the dredge paid for itself many times over.

The Coal Creek dredge last operated during the mid-1970s. Following that, it was left to the elements and an occasional visitor or vandal who happened to come across it. Fortunately for the dredge and the National Park Service, its location, well over 50 air miles from any population center, made it an unlikely target for looters. To date, the only serious vandalism has been the theft of a single pressure gauge from the Atlas locomotive engine that powered the dredge and several brass handles from the winchroom.

As with most historic structures, the most important aspect of it is the roof. Once the roof fails, the rest rapidly follows. In 1989 and 1990 the National Park Service replaced the roof decking, applying new rolled aggregate asphalt roofing to protect the dredge. In addition, NPS replaced the corrugated, galvanized metal over the stacker and added new railings around the deck. In a number of places, the galvanized metal siding had pulled loose. This was re-attached. Future work includes repairs to windows and doors, clearing vegetation from around the dredge and inventorying the tools and artifacts scattered throughout.

Interpretation

Because Yukon-Charley has, on paper, one of the lowest visitation rates in the national park system, it should not be assumed that interpretation is not a high priority. Interpreting a dredge is both exciting and challenging, particularly when it is not readily accessible. The preserve visitor center, located 10 river miles east of the preserve and 110 river miles from the dredge, acquaints visitors with the rich variety of resources, both cultural and natural. On-site interpretation includes a wayside exhibit and photographs in Slaven's Roadhouse. A major research and writing project underway on the mining companies that operated the Coal Creek dredge and its sister dredge on Woodchopper Creek. In addition, NPS is considering producing a video tape using historic footage of the dredge in operation. Since the last gold dredge operating in Alaska closed down several years ago, such a video will provide visitors an opportunity to see what it was like to work a placer gold deposit using "state-of-the-art" technology.

Partnerships

Because of the unique nature of the Coal Creek dredge, NPS has considered rehabilitating the machinery and equipment to the point that the dredge could operate again. This would enable raising the digging ladder and rotating the bucket chain. By maintaining the machinery in running condition, its life can be extended considerably. Potential partners for rehabilitation and preservation work include the Alaska Miners Association and the Alaska Railroad (the dredge is powered by an Atlas locomotive engine).

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Photos courtesy Bill Lemm Collection, Yukon-Charley Rivers National Preserve, Alaska.

Frank Norris

Preserving the Klondike Gold Rush Legacy

In the late 1960s, United States and Canadian park officials seized a remarkable opportunity to preserve the primary remnants of the 1897-1898 Klondike Gold Rush. The gold rush "stampeders" made their way to the Klondike over a 1,600-mile-long chain of oceans, trails, and rivers that stretched from the State of Washington to Yukon Territory. Because much of the inland portion of that route lapsed into wilderness once the rush ran its course, entire ghost towns, mining landscapes, and trailside artifacts by the thousands remained where they lay. The following account traces how the National Park Service and Canadian park authorities, working with state, provincial, and local agencies, were able to preserve the major gold rush-era resources.

One hundred years ago, the Klondike Gold Rush was in full swing. Tens of thousands of gold-mad "stampeders" were on the way to the Klondike gold fields, located near the confluence of the Klondike and Yukon rivers in the center of present-day Yukon Territory. Some of the northbound throng were getting supplies in one of many west coast ports. Others were on an Inside Passage steamship, threading their way along the coast of British Columbia and southeastern Alaska. Still others hunkered down in the ports of Skagway or Dyea, Alaska, at the northern end of the Inside Passage. Those who had fallen prey to gold rush fever several months earlier were on their way over the coast mountains, camped in huge tent towns along either the Chilkoot Trail or the White Pass Trail. Those farthest along the way were encamped at either Lake Lindeman or Lake Bennett, at the northern end of those trails, building a boat and waiting for the ice to break. Everyone anxiously awaited breakup so that they could race down the Yukon River. They hoped to be among the first to reach Dawson City and the Klondike gold fields where, so rumors had it, the streets were paved with gold. It was a wild, exciting time. It was the "last grand adventure," a chance for the desperate and adventurous to risk everything in the ultimate get-rich-quick scheme.

The gold discovery that started this madness had taken place in the summer of 1896. Skookum Jim, along with companions Dawson Charlie and George Carmack, had found gold lying "like cheese in a sandwich" on a hot August afternoon on the banks of a small Klondike River tributary. However, the Yukon basin was so isolated from the rest of the world—particularly during the long, ice-bound winter—that few outsiders heard of the strike until mid-July 1897. Within two days of each other, two ships—*Excelsior* and *Portland*, en route to San Francisco and Seattle, respectively—landed with literally tons of Klondike gold and scores of miners to broadcast the extent of the newfound wealth. The rush was on. During the following year, some 100,000 people headed north.

By the summer of 1898, the dream of Klondike gold had fallen prey to grim reality. Upon reaching Dawson, the stampeders learned that the gold fields, though remarkably rich, were limited in their geographical extent. All land that had any possibility of yielding gold had been staked months earlier. Given that news, most of the stampeders lingered around Dawson City for awhile. However, many left the area and headed home with little to show for their efforts than a few gold nuggets and a wealth of hard-won experience. Those who remained in the Dawson area until the following spring heard an increasing number of rumors about a fabulous gold strike near the Bering Sea in northwestern Alaska. The Nome gold rush was on and the Klondike excitement soon faded into history. The two largest towns that erupted during the gold rush—Dawson City, Yukon Territory and Skagway, Alaska—remained active. But Dyea, Sheep Camp, Log Cabin, and other trailside towns were quickly abandoned. The trails themselves were soon swallowed up by the surrounding forests.

Tourists—"excursionists" in the jargon of the day—had been gawking at the wonders of southeastern Alaska's Inside Passage for more than a decade before the gold rush. The construction of the White Pass and Yukon Route railroad in 1898-1900 gave visitors the opportunity to head inland and see the rugged gold rush routes for themselves. Rail trips paralleling the White Pass trail from Skagway, Alaska, to Bennett, British Columbia, were a standard part of the tourist regimen by 1910. By 1920, a small but increasing number of tourists were taking the railroad all the way north to its terminus at Whitehorse, Yukon Territory. The truly adventurous then boarded a White Pass riverboat and sailed down to Dawson. Travelers found that both Skagway and Dawson had a pleasant, tumble-down appearance that was seemingly unchanged from the "Days of '98," and old-time residents were often on hand to enliven the visitors' experience.

By the 1930s, many of the old-time residents had died or moved away, and the gold rush-era

buildings were beginning to fall prey to time and the elements. Far-sighted individuals recognized that the gold rush was one of the major events in north country history and that something needed to be done to preserve, for future generations, some of the gold rush buildings and trails. Elmer A. Rasmuson, a Skagway banker, advanced the idea of a "Skagway National Park" in 1933. The idea was kicked around the National Park Service for the next couple of years, but then died away. Several factors militated against preservation during that period. Neither the United States nor the Canadian government had much of an interest, nor much of a track record, of expending funds for preservation purposes. In addition, both Alaska and the Yukon were territories and thus received little attention from Washington and Ottawa, respectively. Local governments and private entities were either unconcerned or were financially unable to help. Buildings and trails on both sides of the border continued to deteriorate.

By the late 1950s, the preservation possibilities began to improve. Tourism to the north country increased to levels never seen previously. In 1959, Alaska became a state. Attitudes toward preservation improved. A small corps of local residents began to lobby for restoration work, both for civic beautification purposes and because of its long-term benefit to heritage tourism.

The first big step to popularize the gold rush era took place near Skagway in early 1961. The Alaska Youth and Adult Authority (the new state's corrections department) decided, as a work project, to reopen the Chilkoot Trail to recreational hikers. Over the years, the original trail surface had become largely if not totally invisible. The new trail went over only part of the original right-of-way. The trail on the United States' side of the border was completed by the summer of 1964. In 1968, Canadian corrections crews extended the route from the border (on the summit of Chilkoot Pass) north to Lake Bennett.

Private businesses thrive along Broadway Street in downtown Skagway. Many were rehabilitated, using federally-sponsored matching grants, during the late 1970s and early 1980s. Photo courtesy NPS.

The 1960s brought other signs of interest in the area's gold rush history. In 1962, the National Park Service designated the Skagway-White Pass area as a National Historic Landmark. The National Park Service Advisory Board also showed an interest in the area; board members visited Skagway in both 1963 and 1965. For their part, Skagway citizens did what they could to perpetuate the gold rush atmosphere. The town council decided not to replace its old plank boardwalks with concrete, and it moved to rehabilitate the Arctic Brotherhood, a well-known city-owned landmark.

During this same period, Canadian officials were also active in gold rush preservation efforts. In 1961, the National Historic Sites Branch repaired S.S. *Keno*, an old Yukon River sternwheeler located in Dawson City. The following year, the craft was used as a casino during the town's Gold Rush Festival. In 1966, another old sternwheeler, S.S. *Klondike*, was moved across town to a display site in a Whitehorse park. Soon afterward, Canada's Historic Sites and Monuments Board designated both vessels as National Historic Sites. On both sides of the border, the efforts taken during the early- to mid-1960s were piecemeal, but they signaled a growing interest in gold rush history and in the respective national governments' willingness to fund preservation efforts.

In 1968, both nations became more serious in their efforts to preserve the gold rush corridor. After gaining permission from Alaska governor Walter Hickel, National Park Service planners compiled "Skagway, A Study of Alternatives." The document envisioned three scenarios for the agency and recommended a course of action that called for a 977-acre park that would include just two buildings in the Skagway business district and a narrow corridor along the recently-opened Chilkoot Trail. The Canadians showed their interest by stationing a parks-agency staff person in Whitehorse. They expressed a growing interest in preserving the old Presbyterian church on the shore of Bennett Lake as an interpretive site. Beyond that, Canadian officials studied Klondike's history "with the object of determining how best to preserve the relics and interpret the story of those exciting days."

The park idea gained considerable momentum in 1969 when Canadian and United States park officials arranged a joint Chilkoot Trail hike. Some 20 officials from the federal, state, territorial, provincial, and local levels hiked the 33-mile trail over Labor Day weekend. Immediately afterward, they continued on to Dawson for an inspection tour. The group then flew back to Whitehorse, where United States and Canadian park officials produced a confidential report outlining a proposal

for an international historic park based upon the Klondike gold rush theme. The idea was approved by National Park Service Director George Hartzog, and subsequently by Secretary of the Interior (and former Alaska governor) Walter Hickel. On the Canadian side, park designations all along the gold rush corridor—at Bennett, Whitehorse, Dawson City, and in the gold fields—were enthusiastically backed by Jean Chretien, the Minister of Indian Affairs and Northern Development (and Canada's current Prime Minister). On December 31, 1969, the two countries issued a joint press conference calling for the collaborative development of a Klondike Gold Rush International Historic Park.

On the United States side, events moved in fits and starts from the proposal stage to legislative reality. In 1970, Edwin Bearss wrote a historic resources study of the proposed park. The following spring, the National Park Service issued a draft master plan. However, momentum then slowed and it was not until the spring of 1973 that the final master plan was approved. The plan was fairly uncontroversial. Both the State of Alaska and the City of Skagway liked the park idea. But the increased size and complexity of the park proposal—three separate units in Alaska, an additional small unit in Seattle, Washington, the proposed purchase of several Skagway commercial buildings, and a variety of public land jurisdictions in the area—slowed down the overall park development process. The first bill calling for a Klondike Gold Rush National Historical Park was introduced in April 1973, but a crowded congressional agenda (including the Watergate controversy) delayed hearings until May 1975. The bill passed Congress on a voice vote and President Ford signed the park bill on June 30, 1976. The resulting Act called for a 13,000-acre park, including a mile-wide corridor along the Chilkoot Trail, a similar corridor along the upper portion of the White Pass Trail, the acquisition of 16 gold rush-era buildings within the Skagway Historic District, and a visitor center in Seattle's Pioneer Square District.

North of the border, the idea of a national park in the Chilkoot Trail corridor was advanced by a land-exchange agreement, announced in June 1973, between Canadian minister Jean Chretien and provincial official Jack Radford. However, the agreement was never finalized. In anticipation of a park that would have emerged from that agreement, Canadian park officials joined together with their counterparts from the United States to patrol recreational travel along the Chilkoot Trail. Each year, from early June through mid-September, United States rangers and Canadian wardens worked together to ensure a safe experience for the thousands of visitors who trekked over the Chilkoot Trail.

The creation of a park on the Canadian side of the Chilkoot Trail corridor bogged down in negotiations between the federal and provincial governments. Anticipating a resolution of the administrative logjam, Parks Canada steered a planning process for the proposed park between 1986 and 1988. But the land transfer was not completed until the early 1990s. Environmental Minister Tom McMillan then moved to officially declare the Chilkoot Trail National Historic Site. It was established, at long last, on April 7, 1993.

Given that long-anticipated declaration, the park corridor that planners had first envisioned back in the late 1960s had finally been realized. Park units commemorating the gold rush had been established in Seattle, Washington; in Skagway and Dyea, the two port cities at the north end of the Inside Passage; along the two major trails surmounting the rugged Coast Mountains; in Whitehorse and Dawson City; and in portions of the Klondike gold fields.

Only one goal remained—that of an international historic park. Legislation creating the United States park had stated that an international park could not be declared until a similar park had been established in Canada. Shortly after the April 1993 designation, officials on both sides of the border explored the idea of an international park. All agreed that the concept was largely symbolic. After all, the two governments had been cooperating on Chilkoot Trail operations for more than 20 years and the designation of an international park did not imply that either government would need to surrender any of its management authority. Based on that mutual recognition, United States and Canada park officials have sounded out the international park idea to the top officials in their respective agencies. It is hoped, and anticipated, that the concept can be realized in time to declare an international park this year—the centennial of the Klondike gold rush. A dedication ceremony is planned for mid-August at the Bennett, British Columbia, train station. The ceremony will feature governmental dignitaries, current park officials, and those who helped make the park a reality.

Frank Norris is a historian at the Alaska Support Office in Anchorage. During the 1980s, he spent several years at Klondike Gold Rush NHP in Skagway. He is the author of an administrative history of the park, and the co-author (with David Neufeld of Parks Canada) of Chilkoot Trail, Heritage Route to the Klondike, *published by Lost Moose Press of Whitehorse in 1996.*

Michael R. Hilton

Integrating Natural and Cultural Resource Management in Katmai National Park and Preserve

Recent archeological investigations in Katmai National Park and Preserve (Katmai) in Southwestern Alaska have produced new information illuminating the lifeways of the region's native inhabitants for seven millennia.

The southern border of Katmai is defined by the exposed coastline of the Gulf of Alaska. Unlike the often protected waterways of the Pacific Northwest coast to the south, the coastal peoples of the Upper Alaska Peninsula regularly endured agitated seas and strong prolonged winds. The region's native inhabitants tempered the less-than-accommodating environment with innovative technological adaptations like the highly maneuverable skin-covered boat and well-insulated semi-subterranean homes.

The Katmai area is continually being transformed by a combination of vigorous natural agents, such as tectonic movements, volcanic eruptions, sustained winds, regular precipitation, and an incessant pounding surf.. The Aleutian Megathrust Fault parallels the Alaska Peninsula offshore to the south in an arcuate fashion. The formidable Aleutian Mountain range rises to a height of 7600 feet within the park boundaries, a result of the Pacific Plate colliding with the North American Plate. The seismic events generated as a result have caused measurable, sometimes catastrophic deformation in coastline morphology. The 1964 Alaskan Earthquake is only the most recent example in a long history of tectonic activity.

Katmai National Park coastal topography.

Tectonic instability is responsible for the formation of over 40 historically active volcanoes on the Alaska Peninsula, 15 of which are located within Katmai. The eruption of Novarupta in 1912 deposited an estimated six cubic miles of ash across the nearby landscape. Since that time water, winds, and gravity have redistributed the ash to distant areas well beyond their original location following the blast. Although the Gulf coast of the park was leeward of prevailing winds when Novarupta exploded, the 1912 ash deposit is often a visible horizon indicator to archeologists.

Inhabitants of the Katmai coast had to cope with the immediate effects of large ash accumulations on the flora and fauna of the region after the more significant volcanic events. The long-term stress those events placed on the natives was also significant as they were forced to abandon and relocate settlements when increased sediment budgets overloaded streams and longshore currents transformed coastline morphology filling bays and estuaries. Since 1912, for example, Katmai Bay has been transformed from a large bay to an overloaded braided outwash causing the abandonment of a sizable village located near the mouth of the bay.

Glaciation is believed to have played only a limited role in the formation of the Katmai coastal landscape since the arrival of the first humans. In contrast to the dynamic glacial reconstructions proposed for Southeastern Alaska and British Columbia, the degree of glacial activity during the last 10,000 years in Southwestern Alaska is believed to have been significantly less. With the exception of isostatic rebound in the first half of the Holocene the effects of glaciation have been substantially less than that of volcanism and tectonism.

Katmai can be divided into three major topographic zones: the coastal zone bordering the Gulf of Alaska, the Aleutian Mountain range, and a lake

region to the north of the mountains. Several transportation corridors cross the Aleutian range, but glaciers, snow, and steep terrain discouraged settlements in this more hostile zone. The inland lake region, although heavily utilized by the Katmai natives, remains outside the scope of this summary. The modern coastal zone on the southern border of Katmai is almost devoid of forest although limited stands of spruce and several deciduous species are slowly establishing themselves in isolated areas of the park. Alder and willow dominate the coastal shrubland. The remainder of the vegetation is composed of grasses, sedges and a colorful array of seasonal flowers.

Current archeological evidence suggests there was a human presence in the Upper Alaska Peninsula region for the past 7000 years. Several settlements in Southeastern Alaska have been assigned dates in the 10,000 year range and sites older than 8,000 years are documented to the southwest of Katmai on the Aleutian Island chain. The lack of well-documented older sites on the Upper Peninsula is commonly attributed to changes in relative sea level which have displaced and/or destroyed the older material evidence.

The native inhabitants of the Gulf coast were traditionally a marine oriented society. Seldom is evidence found of settlements located more than a short hike from what is now, or once was, the coastal beach. The few exceptions are normally distributed near freshwater streams which support anadromous fish migrations. Fauna assemblages recovered in archeological contexts are commonly dominated by saltwater fish species and sea mammals such as pinnipeds and whale. The remains of avian species and terrestrial mammals are often represented, but in limited numbers.

Archeological excavation was first initiated at the Mink Island site (49-XMK-030) in the summer of 1997. The site was targeted for data recovery for several reasons. The small exposed island upon which the site is located is highly vulnerable to prolonged winds, a pounding diurnal surf, heavy annual precipitation, and winter frost damage. The combined effects have proven devastating to the site, significant as the oldest dated site along the Katmai coast. The highly visible shell midden and lithic material found scattered across the steep slopes composing the perimeter of the site acted as a red flag to vandals.

In addition to the destruction caused by natural weathering and looting, representatives of local native groups voiced concern regarding human skeletal remains which had been reported to be eroding. The NPS initiated consultation with 31 potentially affiliated groups regarding treatment of the exposed human remains at the site. The Council of Katmai Descendants is currently writing a plan of action for treatment of the human remains and participated directly in the 1997 actions to protect the human remains at the site.

The Mink Island site is a deeply stratified multi-component site located 1.5 miles offshore of the Katmai mainland. The treeless island is approximately 10 hectares in size, but the site itself only occupies a small well-defined peninsula encompassing less than 0.2 acres. The site consists of two separate loci of disparate ages. The top of the deposits capping the site are more than 7 meters above the mean high tide. The younger components are located in this upper area. Eleven radiocarbon samples have been analyzed from the younger locus producing calendar dates between AD 370 and AD 1400. The bottom of the younger deposits has not yet been dated.

The older locus is separated both horizontally and vertically from the younger deposits above. Four radiocarbon dates indicate that the older locus was occupied sometime between 5200 BC and 3100 BC (2 sigma calibrated range). Presently situated approximately two meters above mean high tide, the older deposits are dangerously susceptible to high-energy storms, particularly in the winter months.

Excellent organic preservation at Mink Island may ultimately prove to be one of the site's more important contributions to the region's prehistory. Well-preserved bone will facilitate studies of diet, seasonality, and subsistence strategies. A thorough analysis of the large faunal collection is planned in the near future, but the occupants' preference for fish, sea mammal, and intertidal invertebrates is unquestionable. Sections of at least one whale had also been hauled up the slope and processed on site.

A formal study of the invertebrate collection recovered at Mink Island has resulted in the identification of 28 different species of shellfish. The inventory includes mussel, clam, chiton, limpet, sea urchin and several gastropods. Such a rich collection of fauna attests not only to the inhabitant's broad dietary tastes but also to the rich diversity of the Katmai coastal waters.

The Mink Island assemblage spans more than 7000 years and can be used to support paleoecological reconstructions leading to an understanding of past climate change and marine implications. Intertidal species as well as specific fish and sea mammals tend to favor particular environmental systems sensitive to climate change.

An equally important aspect of the younger locus of the Mink Island site is the well-preserved organic tool assemblage present. Sea mammal bone was the primary material type employed to forge the numerous implements found, with bird bone and antler a distant second. Ivory is not read-

Bone harpoon points from Late Katchemak Period recovered during the first season of excavation at Mink Island.

ily accessible along this section of the Alaskan coast and constitutes a negligible percentage of the 2700 artifacts recovered during the 1997 season.

The majority of the material so far recovered from the younger locus corresponds to the Late Kachemak culture proposed for the region covering the period between 500 BC and AD 1200. The technological and artistic accomplishments of the Late Kachemak people are often considered the zenith of precontact cultures of the Upper Alaska Peninsula. Items of personal adornment recovered at Mink Island include a nose ring and bead of a soft reddish stone, decorated pins and facial labrets of different styles and materials. Lithic implements include both ground and flaked stone technologies. Oil lamps of pecked stone were also found, one of which contained decorative grooves.

At the time of this writing a second season of excavation at Mink Island, focused on the older deposits is underway. At the same time, a number of promising research questions will again be addressed at the younger locus. Household areas will be targeted for excavation and spatial distributions will be studied to recognize any patterns which may exist between the artifacts discarded outside the home versus those abandoned inside the structures.

Site formation processes at XMK-030 may become one of the more interesting studies generated by the project. More than 6 vertical meters of deposits have accumulated since the site was first occupied. The dynamic natural agents already summarized impacted the site's occupants and rearranged postdeposition deposits. Cultural factors appear to be equally important in the formation of Mink Island site stratigraphy. During excavation the first year very thin repeating sequences of shell, fish bone, and sea urchin were noted in several units of the block excavation. Team members in 1998 hope to extract an undisturbed section of the layered deposits using resins to cement a column sample in situ. The mold of the deposits can then be cross sectioned and the micromorphology studied in the laboratory to determine if each sequence represents a series of individual processing episodes from a single year or an annual cycle based on seasonal availability and/or dietary preferences.

Careful recovery of subsurface deposits on Mink Island are providing data with which to reconstruct the inhabitant's dietary preferences, subsistence strategies, technological innovations and economies. The site's well-defined boundaries will facilitate estimates of site population densities and carrying capacities. The shifting emphasis placed on artistic expression and personal adornment can be tracked through time at Mink Island due to its multi-component composition. Equally encouraging is the site's potential to contain material from the poorly documented Early Kachemak culture dating before 500 BC.

Recent archeological investigations are shedding new light on traditional native lifeways along the coast of Katmai. At the same time the efforts have fostered an improved working relationship between the National Park Service and local communities. Most importantly, the Mink Island deposits are shedding new light on the rich cultural and natural history of Katmai by illuminating economies, technologies, and traditions within a paleoecological context.

References

1 Gerald H. Clark, "Archaeology on the Alaska Peninsula: The Coast of Shelikof Strait, 1963-1965," *Anthropological Papers of the University of Oregon* (Eugene, OR), 13.

2 Wilbur A. Davis, "Archaeological Investigations of Inland and Coastal Sites of the Katmai National Monument, Alaska: Report to the National Park Service." *Archives of Archaeology* (University of Wisconsin Press, Madison, 1960), 4.

3 Albert A. Jr., Dekin, Mark A. Cassell, James I. Ebert, Eileen Camilli, Janet M. Kerley, Michael R. Yarborough, Peter A. Stahl, Beth L. Turcy. "Exxon Valdez Oil Spill Archaeological Damage Assessment." Final Report under Contract No: 53-0109-1-00325 submitted to the USDA Forest Service, Juneau, AK.

4 Nora R. Foster, "Fauna Remains from the Mink Island XMK-030 Shell Midden." Manuscript on file, Katmai National Park Office of Cultural Resources, Anchorage, AK.

5 Wendall H. Oswalt, "Prehistoric Sea Mammal Hunters at Kaflia, Alaska." *Anthropological Papers of the University of Alaska* 1:1(1955), 47-91.

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Photos by the author.

Theresa Solury and Barbara Little

Archeology and Labor History

The new Labor History tells stories of working people in their homes and communities in addition to the traditional focus on the picket line. Archeology searches the remains of workers' material life. Labor Archeology pieces together the details of archival and archeological resources into a tangible historical tapestry that both illuminates workers' lives and improves archeological methodology for interpreting 19th- and 20th-century remains. When the National Park Service undertook a National Historic Landmark (NHL) theme study on American labor history beginning in 1991, archeology was not specifically included. In an unrelated occurrence, the Society for American Archaeology's NHL Committee recommended two appropriate topics for NHL archeology studies. The first is the Earliest Americans Theme Study, currently underway. The second would be the development of industry. This essay is a brief introduction to the earliest stages of that second theme study, which may also be thought of as the archeological component of the labor history theme study. The choice of examples does not imply that these properties will be nominated as NHLs.

Though perhaps not the precise solution Herbert Gutman intended when he wrote of a need to understand the "mind" of the worker over the history and behavior of labor movements[1], archeology is a way to understand the reality of workers' lives by studying the material remains of their homes and communities. Analyzing remains of workers' communities offers information on the social, economic, ethnic, gender, and political aspects of the daily lives of workers and their families. The presence of certain types of remains often characterizes workers' communities. These types include, but are not limited to, industrial structures such as factories, mines, and mills; workers' housing; commercial institutions such as company stores, bars, and clubs; and infrastructural features such as sewer and water systems, roads, canals, and railroads.

While archeologists may investigate each type of site separately, it is only when we view the communities as a whole that we obtain a clear understanding of workers' minds and daily lives. An archeological analysis of labor history involves many research issues. The two general types of issues described below are umbrellas for more specific research questions.

The first general issue is ethnic, class, and gender divisions and conflicts in workers' communities. Construction methods, architectural styles, and community layout are clues to the ethnic, class, and sometimes gender segregation of workers' communities. In the archeological record, style or type of artifact may indicate ethnic heritage or other characteristics. Examples include the predominance of imported Asian goods at a Chinese mining camp or the personal toiletry possessions of a Lowell mill girl. Archeologists can study conflicts between ethnic groups and classes by analyzing the physical evidence of interactions between different groups, by studying such items as trade goods or cultural assimilation as evidenced by the material record. Archeologists can also relate more specific research questions in this area to individual sites, such as how Chinese miners at the Moore Gulch Chinese Mining adapted to the prevailing culture and work methods in Idaho during the 1800s.

The Sunrise City Historic District, on the Kenai Peninsula of Alaska, provides another National Register example of how the material remains of a workers' community may illustrate ethnic, class, and gender distinctions. This district contains the remains of a late-19th century mining camp that became the supply center for mining in the Sixmile Creek area. The archeological and architectural remains include building ruins, foundations, root cellars, depressions, artifact scatters, isolated artifacts, mining features, the remains of a tram line, and a cemetery. Recently, researchers have begun studying the lives of women in frontier communities, working against the assumption that these communities were strictly male. The presence of female oriented items in the archeological record of Sunrise City can verify the presence of women in mining communities. Excavations at this workers' community also have the potential to reveal information on issues such as how domestic households were organized, the consumption habits of a frontier mining community, and ethnic and gender relations within the community.

A second general issue is the effect of labor and industry on workers' and their families' lives inside and outside the workplace. Changes in labor practices following industrialization affected workers' lives on many levels. Within a mid-19th century workplace, for example, the absence of personal belongings, liquor bottles, or tobacco related products may reflect the institution of new company policies and the modern work ethic. The absence of work-related items in workers' domestic areas also supports increasing separation of paid work from the home. In boarding houses in Lowell National Historical Park, the archeological record provides evidence of company policies on personal

behavior in public and the structure of free time[2]. Archeologists can research this aspect by studying the evidence of discouraged worker behavior, such as alcohol consumption as evidenced by the presence of liquor bottles in the material record.

More specific research questions under this heading include how workers responded to new company policies and the modern work ethic in their consumption habits, how workers' families adapted to the separation of work from the home, and how company policies affected workers' free time and social lives. An example on the National Register that may illustrate this issue is the Mill Creek Historic District in Montgomery County, Pennsylvania. This district includes at least seven 18th- to 19th-century milling communities with their associated mills, mill workers' housing, mill owners' housing, and managers' housing. These structures are present today as archeological and architectural ruins. This district is also noteworthy for its connection to industrial and technological changes over time. The introduction of technological advancements to the mills affected the methods, efficiency, and employment of the mill workers. Archeological remains in the workers' communities suggest economic, social, and technological changes within the workers' homes that mirror the changes in labor practices and industry development.

The Hells Canyon Archeological District, which runs along the Snake River in Idaho and Oregon, is another National Register example of industry impact on workers' lives. This district contains a large number of historic period mining, ranching, and agricultural related remains. Archeological and architectural remains from many small-to-mid-sized mining operations and their associated labor communities illustrate the settlement of this part of the Pacific West and the development of mining technology. These remains also illustrate how industrial development, economic challenges, and eventual industrial abandonment of Hells Canyon impacted miners' daily lives and living conditions.

These two general sets of issues are by no means the only topics available for research at workers' communities, but they serve to illustrate the value of archeological analysis of workers' communities to labor history. Historical documentation provides data on labor history, on the history of certain towns, and on technological and socio-economic developments. Archeology supplements and can verify these accounts by providing specific material information on daily conditions, consumer choices, and laborers' behavior.

Archeologists, anthropologists, and historians each study some aspects of labor history. Industrial archeologists study the architectural features and development of small-to-large-scale industrial operations. Anthropologists of work study the social, economic, and cultural impacts of labor on the lives of workers and their families. Some archeologists have looked at the material remains of labor sites and studied the impact of labor operations on the spatial organization and culture of labor communities. Others have begun to broaden their approaches to studying workers' communities. For example, Donald Hardesty[3] has created a typology of mining sites in the Pacific West, while Paul Shackel[4] has used archeology to study changing attitudes and behavior of workers in 19th-century Harpers Ferry as factory discipline replaced craft methods.

The number of sites on the National Register with significance for labor archeology suggests the wealth of material for further research. Revisiting previously excavated industrial sites with attention to labor issues may contribute insights to labor history. With anthropological, historical, and sociological issues in mind to help establish the historic context, archeologists can plan future research designs with greater attention to the development of industry and workers' communities.

Our work on potential archeology NHLs related to the labor history theme study has just begun. We would be very glad to receive information and suggestions about appropriate archeological properties. Please contact Barbara Little at NPS, Cultural Resources, Suite 400; 1949 C St., NW; Washington, DC 20240; email <barbara_little@nps.gov>.

Notes

1 Herbert Gutman, *Work, Culture, and Society in Industrializing America: Essays in American Working-Class and Social History* (Alfred A. Knopf: New York, 1976), 79.

2 See Mary Beaudry and Stephen Mrozowski, *Interdisciplinary Investigations of the Boott Mills Lowell, Massachusetts: Volume III, The Boarding House System as a Way of Life* (Center for Archeological Studies: Boston, 1989).

3 Donald Hardesty, et al., *Riepetown Data Recovery Plan, Robinson Mine Project, White Pine County, Nevada* (Western Cultural Resources Management, Inc.: Sparks, 1992).

4 Paul Shackel, *Culture Change and the New Technology: an Archeology of the Early American Industrial Era* (Plenum Press: New York, 1996).

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Nancy J. Russell

Curating Living History
A Case Study from Bent's Old Fort National Historic Site

Discussions of living history museums usually focus on the educational value or the interpretive practicalities of re-enactment. Little attention is given to the curatorial issues endemic to living history sites. Although professional publications are beginning to acknowledge that living history requires different curatorial approaches[1], articles that specifically address the methodology[2] are still rare. This article examines living history from a curatorial perspective, highlighting some of the specific challenges that confront the staff at Bent's Old Fort National Historic Site.

The Bent St. Vrain Company built Bent's Fort in the early 1830s on the north bank of the Arkansas River in what later became La Junta, Colorado. The location of the adobe structure was carefully chosen to capitalize on the lucrative trade with Indian tribes (e.g., Cheyenne, Arapaho, Kiowa, and Comanche). The fort was also an important stop along the Mountain Route of the Santa Fe Trail. Following its abandonment by William Bent in 1849, the fort was used as a stagecoach stop (1861-1881) and then as an area to graze cattle (1881-1884). By the time Bent's Old Fort became a National Historic Site in 1960, none of the original structure was visible above ground.

A volunteer demonstrates buttermaking. Food preparation is one of the basic curatorial problems that must be addressed in living history museums.

Following extensive archeological investigations in the 1960s, the National Park Service reconstructed the fort in 1975-1976. Today, this reconstructed building, together with its largely reproduction furnishings, affords unique educational and accessibility options for historical interpretation that would be impossible to achieve with an original resource. For visitor safety and to protect period pieces on exhibit, four rooms have barricades at the doors to prevent entry. However, visitors have unprecedented access to the fort and its furnishings in the other 30 rooms. Visitors regularly comment on the positive impact this accessibility has on their visits.

As a reconstruction, the fort is ideally suited to living history interpretation as used to tell the history of the site, its role as a cultural crossroads in the Southwest and its relationship to the Santa Fe Trail, the opening of the West and the War with Mexico. In fact, living history is the primary interpretive method used at the site. While numerous museums use living history on a seasonal or occasional basis, Bent's Old Fort NHS is part of a minority of museums that rely almost solely upon it. There are no interpretive labels within the fort and visitors learn about the history of the site from an introductory video, the park's brochure, and through interaction with the park's interpreters during living history tours and demonstrations.

As a reconstruction, Bent's Old fort was viewed by many NPS staff members, park volunteers and living history enthusiasts simply as an elaborate stage for living history re-enactment. With the exception of period pieces, virtually all of the furnishings were available for use. Objects on exhibit were used, and often consumed, as part of living history demonstrations. Furnishings were moved around as needed, regardless of their interpretive role in a given room or their inventoried location. Real meat hung in the pantry ready to be cooked, sometimes after having been killed on site. If tools were no longer useful in their current state, they were simply reshaped into something else. These practices were considered acceptable and perhaps even desirable since they added more "life" to the fort and a greater degree of realism.

Over the past decade, however, there has been a shift in attitude by successive generations of park staff regarding the interface between the reconstructed fort and living history. Fueling this shift has been the need to find a better balance

The use of tools, e.g., blacksmithing, is another curatorial issue that living history museums must address.

between telling the history of the fort and protecting the park's resources for future generations. The realization that a reconstructed resource is not exempt from preservation issues is due, in large part, to fiscal reality. The idea that reproduction objects can simply be replaced if consumed in living history is financially and practically untenable. Reproduction objects are very expensive, sometimes more so than originals. In addition, many of the reproductions currently on exhibit in the fort are no longer available. Finally, the hidden costs of replacing objects (including the considerable time it takes museum staff to find appropriate reproductions, catalog new objects, and deaccession consumed objects) cannot be ignored.

There are also preservation points to consider. The conservation of natural resources is an important issue when exhibits include furs of animals such as buffalo, elk, coyote, beaver, mink and other species. Moreover, the considerable amount of museum staff time devoted to finding, purchasing, and replacing reproductions directly detracts from the actual care of the park's existing museum collections, including the archeological artifacts from the original fort.

In addition to the financial and preservation constraints are the educational and visitor service issues. Since only 35% of the park's visitors take the guided tour, most visitors receive all of their information about the site from the introductory video and a self-guided tour. This fact focuses attention on the importance of the furnishings to tell the desired story in each room. To ensure that visitors receive a consistent message regardless of when they visit the fort and to improve object security, the furnished rooms should not vary according to the day of the week, staffing levels, or living history demonstrations. As a result, the value of the fort's furnishings as exhibits in and of themselves is now fully acknowledged.

The unique circumstances at Bent's Old Fort make strict adherence to all aspects of museum methodology an unrealistic challenge. For example, the environmental standards (temperature, relative humidity, visible light, Ultraviolet radiation, and particulate matter) set for museum exhibition spaces can never be achieved within the fort. Heating, ventilation and air conditioning (HVAC) systems are not available in the reconstructed fort. Light levels vary with the time of day and the season yet the use of shades or other devices would be inappropriate within the fort. Although some rooms do have Ultraviolet filters such films cannot be installed in windows that do not contain glass as is the case for many rooms in the fort.

It is important to recognize that the standards for collection management were developed for more traditional museums and original objects.

Having said that, the park's staff also has a professional and ethical responsibility to adhere to those standards whenever possible. In circumstances where it is not possible, acceptable compromises must be developed.

Within the framework of living history interpretation, successive generations of park staff have implemented various resource protection strategies. At a policy level, the park developed a written Consumptive Use Policy. This document clearly states the park's position that most furnishings in the fort are for exhibition purposes only. It goes on to explicitly state which objects can and cannot be used for living history demonstrations. Original, rare, or unusually expensive objects (period pieces, reproductions of Rio Grande blankets, modern Pueblo pottery, wine bottles reproduced from original archeological artifacts) are never used or even handled during tours or living history programs. Examples of museum objects approved for consumptive use include tools in the carpenter and blacksmith shops, specific examples of saddles and tack, and dishes, cutlery and cookware in the kitchen, dining room and other rooms approved for cooking. Objects purchased expressly for the living history collection, replaceable objects (e.g., candles, soap) and raw materials (e.g., lumber, coal, iron) may also be used in a consumptive manner.

The general park philosophy is that other reproduction objects can be handled and shown to visitors as long as they remain in their assigned rooms and are put back. If an object is needed for use in another room, outside the fort or in a consumptive manner, it must come from the park's living history collection. The exception to this general rule concerns the objects on exhibit in the trade room. With literally hundreds of objects in this

A volunteer demonstrates open hearth cooking.

room (a mixture of reproductions and period pieces) it is imperative that objects are not moved. From a security perspective, a static exhibit is absolutely necessary in this room. As such, objects used by interpreters for trade demonstrations must come from the living history box stored behind the trade counter.

Cataloging and inventory issues have also been a challenge at the park. NPS policy is that all objects on exhibit (original or reproduction) should be cataloged to the museum collection. While sensible for traditional museums, this policy creates a practical problem at Bent's Old Fort. Catalog numbers do not stay on pots cooked over open fires, dishes washed in the dishwasher (to comply with local health regulations), or tools used in the blacksmith's shop. Yet these objects also contribute significantly to the exhibits. Moreover, it would be cost and space prohibitive to have a duplicate set of reproductions to use for these living history demonstrations. As a result, these objects are designated as part of the living history collection and are inventoried or cataloged as such.

Although objects should not move between rooms, this invariably happens during special events when the park has a large number of living history enthusiasts as volunteers. To reduce the inventory time after special events, objects that regularly move in spite of staff lectures (e.g., fireplace tools, tin cups, etc.) are labeled with room numbers in addition to their catalog numbers. This system, together with the use of photographs for each room, ensures that objects are easily and quickly returned to their proper locations after events.

Pest management is also an important resource protection issue. Some of the basic tenets of Integrated Pest Management (blocking access to the museum, eliminating food sources), however, can never be fully achieved at Bent's Old Fort. The reconstruction was such that structural elements allow easy access for mice, bats, and birds. Moreover, a site that cannot block access for such large animals does not have much hope of keeping out dermestids, wood boring beetles, and other destructive pests. In addition, food items are used in exhibits and during period cooking demonstrations, thereby introducing food sources to attract pests. Within these parameters, however, there are effective means of control. First, good housekeeping is essential. Second, widespread trapping procedures are in place. Third, a List of Approved Foods as Exhibit Props is included in the park's housekeeping plan. Although fake foods are used, many of the foods on exhibit (biscuits, coffee beans, tea, dried chili peppers, etc.) are real. In such cases, regular monitoring and periodic replacement of food items are critical for the detection and prevention of infestations. Finally, good food handling practices are imperative. Interpretive programs that involve food preparation require that dishes are washed, spills are cleaned up, soiled towels and cloths removed, and food is stored properly. After special events, all unapproved food sources are removed from the fort's rooms.

Finding an appropriate balance between resource preservation and use is a common struggle for the National Park Service and museums around the world. Although a reconstructed resource may appear to simplify this issue, in many instances it actually complicates it. Although living history is still a vital part of the educational programming at Bent's Old Fort, it occurs within boundaries that are more clearly defined and include the park's preservation mandate.

Notes

1 Rebecca A. Buck and Jean Allman Gilmore, *The New Museum Registration Methods* (Washington, DC: American Association of Museums, 1998).

2 Bob Cottrell, "The Challenges of Collections Care in Living History Museums," *History News* 50:3 (Summer, 1995), 14-19.

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All photos courtesy Bent's Old Fort National Historic Site.

Patricia A. Madrigal and Richard W. Hunter

Mitigating Effects on an Industrial Pottery

From the mid-19th century into the early 20th century the city of Trenton, New Jersey was, along with East Liverpool, Ohio, one of the two dominant centers of pottery manufacture in the United States. During this time, the industry grew from one manufacturer to nearly 50 firms that produced a variety of ceramic products, including tableware, hotelware, sanitary porcelain, electrical porcelain and art pottery. The industry flourished in Trenton because of the city's geographic location between two major metropolitan centers (New York and Philadelphia) and its access to the regional canal and railroad transportation network. Once the industry was established, skilled potters from Staffordshire, England flocked to the region and entrepreneurs financed new ventures; this combination fueled the growth of the industry.

Between 1880 and 1930, Trenton reached its zenith as a center of industrial pottery production with factories large and small ranging across the city. The number of plants dwindled to around 30 at the time of the Depression and by the end of World War II only 18 were listed as being in operation. The Depression was responsible for much of the industry's decline, but other factors, such as labor disputes and the increasing use of other materials (plastic and rubber), also played a role. Today, only a handful of industrial potteries still operate within the city limits, namely the facilities of the Bartley Crucible and Refractories Company, the General Porcelain Manufacturing Company, the National Ceramic Company, and the Star Porcelain Company.

In 1994, Hunter Research, working as a consultant to the New Jersey Department of Transportation, undertook a project that began with the survey and evaluation of just one industrial pottery manufacturing site but, by the end, encompassed the entire industry in a research-based mitigation plan whose final products, it is hoped, will serve as valuable tools to planners, researchers and educators alike.

That year the New Jersey Department of Transportation completed plans for construction of a southbound off-ramp on U.S. Route 1 in the vicinity of New York Avenue and Spruce Street in the City of Trenton, Mercer County, New Jersey. The right-of-way for the off-ramp was located on the site of the Enterprise Pottery Company, reputedly the first pottery in the United States devoted solely to the manufacture of sanitary porcelain and one of the original potteries in the Trenton Potteries Company conglomerate. The Enterprise Pottery was founded in 1880 and continued to operate until 1941.

During the Phase I cultural resource investigations, an historic architectural evaluation of the standing buildings was conducted by C. W. Zink & Co., visible foundations on the property were mapped by Hunter Research personnel, and a geophysical survey was conducted by Geo-Graf Geophysical Investigations, who used ground-penetrating radar to locate possible environmental and archeological features within the proposed right-of-way of the ramp. The ground-penetrating radar was successful in establishing the locations of five of the nine kilns associated with the Enterprise Pottery, confirming information given on late 19th and early 20th century insurance maps.

The fieldwork for the Phase II evaluation was performed in conjunction with environmental and geotechnical investigations at the site. The possibility of hazardous materials being present on the site required OSHA-trained staff to conduct the fieldwork. The site, which lies within the boundaries of the Delaware and Raritan Canal Historic District, was determined to be eligible for inclusion on the National Register of Historic Places as an industrial archeological resource containing valuable information on the Trenton potteries.

The New Jersey Department of Transportation, the New Jersey Historic Preservation Office and Hunter Research concluded that traditional archeological data recovery was not appropriate for this particular project. All parties agreed that the information that could potentially be retrieved from excavating the bases of the industrial pottery kilns within the ramp right-of-way would not substantially augment the existing body of knowledge on the technical aspects of kiln construction or industrial pottery manufacture. In addition, the necessity of excavating the site by OSHA-trained individuals, with the appropriate protective equipment, would have increased the duration of the fieldwork, and thus the project cost. Therefore, this mitigation plan was developed: 1) avoid destabilization of the structure during construction; 2) preserve the kilns in place and monitor during ramp construction; 3) record the building to the standards of the Historic American Buildings Survey and the Historic American Engineering Record (HABS/HAER); 4) conduct research on the Trenton pottery industry as a whole; and 5) produce a booklet geared towards the general public that provides a narrative history of the pottery industry in Trenton. Items 4 and 5 were developed as alternatives to more traditional mitigation through data recovery.

The HABS/HAER recording of the Enterprise Pottery was conducted by John Milner and Associates

(1995), and Hunter Research was contracted by the Department of Transportation to undertake the historic research and booklet production for the project.

As part of the mitigation plan for the New York Avenue/U.S. Route 1 ramp, Hunter Research developed a relational database in MS-Access for Trenton's industrial potteries. The initial goal was to gather in one location basic reference and geographic information on the industry so that it could serve as a planning tool for future construction and development projects in Trenton. Once underway, however, it became apparent that the database could be a useful research tool for the Trenton industrial pottery industry.

Spanning the years 1850 to 1940, the database contains over 100 entries for industrial pottery manufacturing sites in Trenton. Much of the database's information was derived from primary sources available in the Trentoniana: Local History and Genealogy Collection at the Trenton Public Library, where archival materials such as historic maps, photographs, industrial censuses, tax records, and city directories were consulted.

Database entries contain information on pottery locations, years in operation, owners, and products. Reference information, including historic maps and city directory entries, is also included for each pottery. Scanned images of historic maps, photographs and engravings, maker's marks, and advertisements have also been incorporated into the database. Since some potteries are better documented than others, the amount and type of information for each pottery varies widely; some of the better known facilities, such as the John Moses & Sons Coalport Works, contain a large amount of information, whereas others, such as the Healey Pottery Company, contain little more than a name, date, and presumed years of operation.

To accompany the database a series of CAD maps was produced showing pottery locations in ten-year intervals from 1850 to 1940. The locations are plotted on a modern road map of the city of Trenton that includes the locations of the railroads and canals that played such an important role in the development of the industry. The maps demonstrate the growth, peak and decline of the industry and illustrate how the city's transportation network influenced where industrial pottery manufacturing concerns were located.

The last component of the mitigation plan is a teacher's guide on the pottery industry, From Teacups to Toilets: A Century of Industrial Pottery in Trenton, Circa 1850 to 1940. Hunter Research turned to Wilson Creative Marketing, a public relations firm based in Merchantville, New Jersey, for assistance with design, layout, and production.

From Teacups to Toilets was prepared as a guide to assist teachers in introducing fourth to eighth grades students to the pottery industry and to instruct them in a variety of issues and subjects related to it. The guide is intended to instill a sense of pride in Trenton's industrial accomplishments and offer a link to the city's not-so-distant past. It contains sections on the rise and fall of the industry, the process of pottery manufacture, entrepreneurs and workers, and products. It also contains a glossary of terms, suggested activities for students, a limited bibliography and maps illustrating pottery locations, the movement of raw materials and final products, and pottery-related places to visit. Illustrations of potteries, workers, owners, and products, primarily from historic photographs and engravings, have been incorporated throughout the booklet.

The guide is available to teachers free of charge from the New Jersey Department of Transportation. To date, over 500 copies have been distributed, and feedback has been positive. Hunter Research, Wilson Creative Marketing, and the New Jersey Department of Transportation recently were joint recipients of a 1998 New Jersey Historic Preservation Award for From Teacups to Toilets.

Although the booklet has been completed and interested organizations, such as the Trenton Downtown Association, are trying to gather funds for a second printing, the database and maps are still in the final editing stages. But Hunter Research does not consider this stage of editing to be the last one, for the database is viewed as a work-in-progress. As it is distributed, other researchers and historians will be able to provide more information and the database will continue to grow. The challenge at this stage is to answer questions regarding maintenance and future funding and to develop a viable plan for disseminating, updating, and otherwise caring for the database.

The U.S. Route 1/New York Avenue ramp mitigation project has been in many ways a learning experience for everyone involved. It is an example of how interagency cooperation and creative thinking within an environmental impact framework can produce a research tool that will be of value to years to come. The New Jersey Department of Transportation is to be applauded for supporting this non-traditional mitigation plan whose positive outcomes are just now being realized.

References

Hunter Research, Inc. *Cultural Resource Survey, U.S. Route 1 and New York Avenue Off-Ramp, City of Trenton, Mercer County, New Jersey*, (1995). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

John Milner and Associates, Inc. *Historic American Engineering Record Documentation of the Enterprise Pottery, Route 1SB over New York Avenue, City of Trenton, Mercer County, New Jersey* (1995). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

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Melanie Pomeroy

Planning the Future for Prehistoric Monuments

The World Heritage Site at Avebury, England

Detail of prehistoric monument at Avebury. Photo courtesy Timothy H. McCoy

The sites of Avebury and Stonehenge in southern England contain some of the most important prehistoric monuments in the world. Since 1986 their outstanding universal value has been recognised by their joint inscription as a World Heritage Site (WHS) under the UNESCO World Heritage Convention. Since 1996 English Heritage,[1] the lead body developing Management Plans for World Heritage Sites in England, has been funding the drafting of a management plan for the Avebury part of the WHS, to be published later this year.

The Avebury part of the WHS is situated on the edge of the Marlborough Downs in Wiltshire, some 30 kilometres north of Stonehenge.[2] It encloses an area of 22.5 square kilometres around the six key prehistoric monuments in the care of the State which form the basis of the WHS designation. These monuments are: Avebury Henge and Stone Circles; Windmill Hill; Silbury Hill; West Kennet Long Barrow; West Kennet Avenue; the Sanctuary. A key characteristic of the area is the relationship of the prehistoric monuments to later historic features, and it is evident that these monuments have exerted a considerable visual and cultural influence on the surrounding landscape for almost 5,000 years.

The southwest quadrant of the Avebury Henge and Stone Circle, constructed about 2500 BC. The juxtaposition of ancient monument with modern village can be seen in the background. Photo courtesy English Heritage.

The main challenge for the Plan is how to protect the monuments and their settings from the land use pressures of modern life. The Avebury Henge and Stone Circle is a thriving heritage tourism destination attracting in excess of 300,000 visitors a year. The central third of the area is owned and managed by the National Trust[3] for the purposes of preservation. However, the rest of the WHS is in multiple ownership and is intensively farmed, with a village of 250 residents at its core. The present land use pressures on the WHS arise principally from tourism agriculture and traffic.

The Management Plan has been developed in a collaborative manner in consultation with local people and all agencies with management responsibilities in the area. Since September 1996 a great deal of research, survey, and consultation has been carried out as a basis for the development of management policies. As part of this process, a detailed landscape assessment and visitor and traffic studies have been conducted. In addition, English Heritage has developed a comprehensive database of all the cultural and environmental assets of the WHS, held within a Geographical Information System (GIS). These projects form the main building blocks of the Management Plan.

The preparation of this strategic Management Plan for the entire WHS is a significant move forward in securing the future character and quality of the Avebury landscape as a whole, which is locally cherished and internationally recognised. The Plan will provide a framework for the holistic and proactive management of the landscape, helping to ensure that the special qualities of the WHS are sustained and preserved for future generations. In particular the Plan aims to

- establish an overall vision for the long-term future of the Avebury WHS which will be widely accepted.
- explore opportunities for positive management with farmers, landowners, and other agencies

which will enhance the landscape character of the WHS whilst respecting economic interests.
- provide guidance and attract widespread support which will lead to an increased understanding, respect, and care for this exceptional cultural landscape.

The Plan comprises a statement of the objectives necessary for the long term preservation of the WHS and its landscape setting, aiming to balance the interests of conservation, public access, and the interests of those who live and work in the area. The objectives are based on the identification of the values of the WHS, key management issues, and an assessment of why the WHS is sensitive and vulnerable to the pressures of modern life.

The objectives set out in the Plan fall into the following five categories: the land use and condition of the monuments and their settings; the planning and policy framework; traffic and parking management; public access and sustainability; and archeological research. The principles underlying the objectives relate to establishing the most appropriate land use and landscape setting for the monuments through monitoring impacts and the use of management agreements, traffic and visitor management, and improved understanding of the archeological remains.

The plans sets out four main overall objectives for the management of the area for the next 30 years:

- Understand and influence the long-term change in the WHS cultural landscape for the benefit of the historic environment.
- Gain recognition for Avebury as a very special place for which special treatment should be given by government departments, agencies, landowners and visitors in order to safeguard the historic environmental assets of the WHS and their setting for the benefit of succeeding generations.
- Meet Britain's obligations under the World Heritage Convention in relation to the effective management of the Avebury WHS.
- Ensure the sustainability of all uses of the WHS.

Notes

1 English Heritage is the Government's statutory advisor on the conservation of England's built heritage, including archeology, and manages over 400 of the country's most important buildings and monuments.

2 A Management Plan for the Stonehenge part of the WHS is currently in preparation but is not as advanced as the Avebury Plan.

3 The National Trust is the UK's largest conservation charity.

Melanie Pomeroy is the English Heritage funded WHS Officer for Avebury

Further information and a summary of the Management Plan can be found on the English Heritage web site: http.//www.eng-h.gov.uk

Karen Byrne

Ethnic History Exhibits and Public Controversy

In 1996, the Ford's Theatre National Historic Site unexpectedly joined the growing list of institutions that have come under attack for mounting "controversial" museum exhibitions. In recent years, critics have denounced a variety of exhibits, such as "The West as America" at the National Museum of American Art. "Back of the Big House," a traveling exhibit which examined the relationship between slavery and the cultural landscape of plantations, generated so much criticism at the Library of Congress that it was hastily removed from display. The unparalleled controversy that surrounded the proposed *Enola Gay* exhibit at the National Air and Space Museum has been the subject of numerous articles as well as two full-length studies.

Ford's Theatre National Historic Site became part of this growing phenomena in July 1996, when it launched a temporary exhibit entitled "Jewish Soldiers in the Civil War." A primary interpretative theme of the Ford's Theatre museum is the Civil War. In 1995, in an effort to expand the site's treatment of the conflict, the museum staff initiated a series of short-term exhibits on a variety of little-known aspects of the Civil War.

The inspiration for "Jewish Soldiers" came from a Civil War periodical which featured an article on Jewish combatants. The piece raised several intriguing points. The majority of Jews living in the United States at the start of the war had only immigrated within the preceding decade and thus were still acclimating to their new country. Second, in ratio to the total male Jewish population of

1860, a large percentage of Jewish men enlisted in the armies. Finally, Jews experienced forms of discrimination unknown to other soldiers. Yet, despite the ever increasing popularity of Civil War history, the experience of Jewish soldiers had received scant attention from historians or lay audiences. Consequently, the subject seemed ideally suited to a temporary exhibit.

The content of "Jewish Soldiers" was partially determined by availability of artifacts which the museum could borrow free of charge since no special funding had been allocated to sponsor new exhibitions. Fortunately, a number of individuals and institutions generously offered items from their collections. Objects featured in the display included a Medal of Honor, a miniature Mezuzah, a rare Tiffany sabre, veterans' badges and identification tags, a surgical kit, and period photographs.

The exhibit was developed with two goals in mind. The first was to present unique human interest stories which would convey the wartime experiences of individual Jewish combatants on both sides. Examples included Benjamin Levy , a 17-year old drummer boy with the 40th New York Infantry, who became the first Jew to receive the Congressional Medal of Honor for his heroic actions during an 1862 battle. Lt. Edwin Kursheedt, a Confederate officer, who once saved a group of comrades by extinguishing a chest of exploding ammunition. A veteran of 15 battles, Kursheedt was severely wounded at the Battle of Antietam.

The second objective of "Jewish Soldiers" was to address the discrimination and anti-Semitism encountered by Jews. Two notable examples in the United States Army were Order Number 11 and the chaplaincy controversy. The former stemmed from General U.S. Grant's frustration at his inability to curb illegal trade between Northern and Southern merchants, many of whom were Jewish. This order mandated the expulsion of all Jews from the Department of Tennessee. The chaplaincy controversy erupted after the dismissal of two Jewish chaplains because United States Army regulations required chaplains to be ordained clergymen of Christian denominations. Discrimination also plagued Confederate Jews. Captain Adolp Proskauer, 12th Alabama Infantry, was forced to take a grueling series of examinations in order to be promoted strictly because of his commander's anti-Semitic leanings. In 1861, Southerners who disliked Jews frequently blamed Confederate military reverses on Jewish Secretary of War Judah P. Benjamin, and their criticism continued during his tenure as Secretary of State.

"Jewish Soldiers" opened on July 3, 1996. Curators relied on surveys and comment books to gauge the overall response to the exhibition. At first glance, audience response indicated that the exhibit was extremely well received while it also succeeded in educating the public about a virtually unknown aspect of the war. "Very informative on a subject not at all dealt with" one visitor concluded. A history teacher "with a life long interest" in the Civil War "had never heard of this subject." A Georgia visitor noted that "until today I was not aware of this part of history." Ironically, the majority of visitors who identified themselves as Jews commented that they were "amazed" or "surprised" to learn of Jewish involvement in the war. Initially respondents were full of praise for the display. "A great idea to have temporary exhibits on the Civil War period," one individual observed. A California visitor stated "it's great to learn about the different people who fought for our country!" For one man the exhibit "made the Civil War a personal conflict with real people." Still another noted "it enlightened me tremendously."

However, closer analysis of visitors' comments soon revealed a disturbing and unexpected controversy. Two distinct ideological camps began to emerge, one advocated the removal of the display while the other lobbied for it to become a permanent addition to the museum. At times, the debate recorded in the comment logs got so heated that expletives were exchanged.

The contingent in favor of incorporating the display into the museum's permanent collection was predominantly Jewish in composition. One man stated "the importance of Jewish contributions to our country" justified keeping the exhibit. Others believed "the traditional neglect of this subject" was reason enough to retain the display. Indeed, the vast majority of those who advocated the retention of "Jewish Soldiers" did so for two reasons: first, their belief that recognition of Jewish contributions to American society were long overdue: and second, the intense feelings of ethnic pride inspired by the exhibit. At times, their comments implied that the museum had a moral obligation to sponsor the exhibition on a permanent basis.

The more vocal of the two factions, which included individuals who identified themselves as Christians, advocated the removal of the exhibit for a variety of reasons. Complaints of "political correctness" began to appear. One individual believed the exhibit was "political pandering at it's worst." Another contemptuously noted that "this politically correct display to appease Jewish groups is totally inappropriate and uncalled for." One respondent objected to "the Jewish political agenda forcing itself into public places more and more." Indeed, a host of sarcastic comments indicated that many

visitors believed the single purpose of the exhibit was to create a public forum for revisionist, politically correct history.

The exhibit also came under attack from those who believed that it promoted the interests of one ethnic group at the expense of others. Museum visitors repeatedly wondered why Jews had been "singled out" for "special treatment." Typical comments included the charge that the display was "highly inappropriate" because "other creeds" were unrecognized. One respondent noted he "disliked the exhibit" because "it is very wrong to place emphasis on just one culture." Another stated that she felt "extremely offended that one group should be singled out." Perhaps the most disturbing of all was the implication that exhibit space was for sale. This allegation was raised by an individual who assumed that "Jewish people's large financial contributions to the museum" resulted in "special treatment for them over Catholics and Protestants."

By far, the most pervasive criticism voiced by the "anti-exhibit" camp was the charge that "Jewish Soldiers" was, by its very nature, divisive. Many shared the opinion of one visitor who observed, "We are all Americans—period. This is totally unnecessary." For others, the display represented a direct challenge to their urgent need for consensus in the present. An Ohio woman believed that "if people stop dividing themselves and drawing distinctions, all would get along!" Several respondents even suggested a correlation between ethnic history exhibits and violence in society. "By treating contributions of separate groups, you are contributing to the fragmentation of American society, leading to intolerance and civil strife," accused one individual. Another offered this forecast: "Let's continue drawing dividing lines among Americans. We can use race and religion to plant seeds for another civil war." Several Jewish visitors shared these opinions. One found the exhibit "offensive for its efforts to introduce 'religious diversity' at this site," while another deemed it a "negative segregation and totally unnecessary."

This unanticipated controversy raised serious concerns for the curators of "Jewish Soldiers." Equally disturbed by accusations of inappropriateness and divisiveness on one hand and the implication that the exhibit was morally entitled to permanent status on the other, the exhibit designers felt obligated to address some of the issues that had been raised. To that end they drafted a Temporary Exhibit Mission Statement which was posted near the display case. This manifesto emphasized the following policies. First, the primary purpose of the temporary exhibit program was to provide a general overview of relatively unknown Civil War subjects. Second, the scarcity of funds necessitated that the museum could only sponsor exhibits that could be developed entirely with donated objects. Third, museum visitors were encouraged to become active participants by proposing subject matter for future exhibits.

"Jewish Soldiers" remained on display for seven months. After the publication of the museum's policies governing short-term exhibits, the controversy associated with "Jewish Soldiers" diminished but never disappeared entirely. Summative evaluation of this exhibit proved enlightening and raised a number of issues that will continue to confront museum educators in the next millennium. Exhibit planners and designers must realize that even the most seemingly innocuous subject matter may be interpreted as "controversial" by museum audiences. A clear, concise statement of purpose may eliminate some criticism. Greater emphasis on front end analysis may also prove helpful, and this analysis must take into account the emotional response of the audience, as well as the intellectual reaction.

Despite these and other refinements of the exhibit planning process, it appears unlikely that museum audiences will become completely comfortable with ethnic history in the near future. The response to "Jewish Soldiers in the Civil War" indicates that museum displays designed to educate the public about the contributions of "minority groups" will remain controversial for some time to come. John Michael Vlach, curator of "Back of the Big House," has suggested that the public may only be receptive to such exhibits during the specific months which have been designated for various ethnic groups. Museum visitors themselves seemed to advocate the creation of segregated museums with their suggestions that the exhibit on Jewish soldiers was appropriate for a "Jewish" museum. Ironically, they did not appear to recognize that the concept of "segregated" museums is an example of the "fragmentation" they themselves so abhorred. And yet, "Jewish Soldiers in the Civil War" and other exhibits like it must continue so long as there is even one individual who can claim "I learned something that I was not aware of until today."

Karen Byrne is the park historian at Arlington House, The Robert E. Lee Memorial. "Jewish Soldiers in the Civil War" was curated by Karen Byrne and Marshal Kesler, an MFA candidate at North Carolina School of Arts.

Thomas C. McKinney

CRM at the Federal Columbia River Power System

The Bonneville Power Administration (BPA) coordinates with the Corps of Engineers Northwestern Division and Bureau of Reclamation Pacific Northwest Region to operate the Federal Columbia River Power System (FCRPS). The agencies share responsibility for management of cultural resources affected by hydroelectric operations. Agency leaders have committed to collaborating with the 13 Federally recognized Tribes of the Columbia River Basin in planning cultural resource management activities at the 14 FCRPS reservoirs. The agencies have also committed to funding at least $4.3 million annually for 15 years to accomplish cultural resource compliance, with BPA power sales revenue providing most of these funds.

The collaboration is organized by hydroelectric project, or groups of projects, in "reservoir cooperating groups." Members of each group represent a unique set of participating Tribes and agencies. For example, one group works on the Corps of Engineers Portland District's three FCRPS projects: Bonneville, The Dalles, and John Day. This group includes representatives of the Yakama Indian Nation, Confederated Tribes of the Warm Springs Reservation, Confederated Tribes of the Umatilla Reservation, Nez Perce Tribe, US Forest Service Columbia River Gorge National Scenic Area, Bureau of Indian Affairs, US Fish and Wildlife Service (wildlife refuges along the reservoirs), Corps, and BPA. The group has adopted the name *Wana-pa Koot Koot*, meaning "people along the Columbia River working together." The group has also adopted a formal structure, including Chair and Vice-Chair (both Tribal members), and a Secretary. According to the *Wana-pa Koot Koot* charter, "Compliance and implementation actions are discussed, prioritized, and planned by the members of this workgroup in a consensual atmosphere."

Recognizing the unifying effect of a group name, the Corps' Walla Walla District reservoir cooperating group (with eight tribes, three of them also in *Wana-pa Koot Koot*) has adopted the name *Payoskuus T'suukwe* (pronounced, pa-yose-koos tsook-wa), meaning "Snake River knowledge and learning." The group's reservoirs of concern include four Snake River reservoirs, Dworshak Reservoir on the Clearwater River, and McNary Reservoir on the Columbia River.

Another group, working on the Bureau of Reclamation's Hungry Horse Reservoir in Montana, includes the Flathead National Forest, Confederated Salish and Kootenai Tribes, Reclamation, and BPA. The Forest implements the archeological component under the euphoric acronym HHAPI (Hungry Horse Archeological Project Investigation). There are also work groups for Albeni Falls, Libby (Lake Koocanusa), and Chief Joseph hydroelectric projects in the Corps' Seattle District. At Reclamation's Grand Coulee Dam (Lake Roosevelt), BPA and Reclamation collaborate separately with the Colville Confederated Tribes and the Spokane Tribe, whose reservations include Lake Roosevelt shoreline, and the Lake Roosevelt National Recreation Area.

Recent accomplishments include testing and evaluation of numerous archeological sites, erosion and vandalism monitoring, completion of the archeological inventory at Hungry Horse Reservoir, starting several Tribal oral histories and ethnographic studies. Tribal archeology staffs have performed much of this work through intergovernmental agreements. Native Americans interested in archeology are typically hired to work on field crews, with some deciding to pursue archeology as a profession. Current challenges are to continue developing the organizational structure of the reservoir cooperating groups, including charters for each group, and developing a work prioritization scheme to facilitate system-wide, long term management planning.

The groups will review their accomplishments at the second annual FCRPS cultural resource management meeting scheduled for February 1999, in Spokane, Washington. The annual meeting also provides a forum to discuss system-wide issues such as budget priorities, and potential solutions to common cultural resource management problems at the reservoirs. Anyone interested is invited to attend.

Thomas C. McKinney is Cultural Resource Program Coordinator and NEPA Compliance Officer for Bonneville Power Administration.

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Christine Trebellas

Tuskegee Airmen and Moton Field

Creating a National Park

Col. B.O. Davis, Jr., in Italy in 1944. This Tuskegee Airman received the Distinguished Flying Cross for his valor in combat.

On July 14, 1998, United States Representative Bob Riley (3rd District, Alabama) introduced legislation to establish the Tuskegee Airmen National Historic Site at Moton Field in Tuskegee, Alabama, to commemorate the role of the Tuskegee Airmen in World War II. Nicknamed the "Lonely Eagles," the Tuskegee Airmen overcame the "separate but equal" conditions sanctioned by the army to become one of the most highly respected and honored fighter groups of the war. The men of the 99th Fighter Squadron and 332nd Fighter Group completed 1,578 missions, destroyed over 260 enemy aircraft, sank one enemy destroyer, and demolished numerous enemy installations. More importantly, they never lost a bomber to enemy fighters while escorting bombing missions. Although the Tuskegee Airmen collectively received 95 Distinguished Flying Crosses, as well as Legions of Merit, Silver States, Purple Hearts, the Croix De Guerre, and the Red Star of Yugoslavia, their combat exploits remained virtually unknown to most Americans. Nonetheless, after decades of obscurity and neglect, Congress is finally considering a bill which would recognize the important contributions of these men and women to the war effort and their effect on the modern civil rights movement. If this act is passed, the Tuskegee Airmen National Historic Site will be the only site in the national park system dedicated to the role of African Americans in World War II.

Ten months before the introduction of this bill, Dr. Benjamin F. Payton, President of Tuskegee University, and Congressman Riley requested that the National Park Service study how best to interpret and celebrate the role of the Tuskegee Airmen in World War II and their initial training at Moton Field. The Alabama Department of Economic and Community Affairs (ADECA) provided a $75,000 grant for the printing, travel, and bulk of the salary cost for NPS personnel. The Southeast Regional Office then created a study team to complete a special resource study, which is the first step in the NPS planning process to evaluate a proposed addition to the system. The special resource study was to consider the potential of adding Moton Field to the National Park System to commemorate the Tuskegee Airmen and determine if the area resources are nationally significant and would make a suitable and feasible addition to the system.

Shortly after Congressman Riley's and Dr. Payton's request, the study team began the project with a reconnaissance survey to collect basic information on the Tuskegee Airmen and Moton Field, the site of primary flight training for the airmen. The team historians consulted various primary and secondary sources such as military records, newspapers, photographs, documentaries, books, and film footage, and gathered additional information from the Moorland-Spingarn Research Center at Howard University, the National Archives, the Library of Congress, Tuskegee University archives, and the Air Force Historical Research Agency at Maxwell Air Force Base in Alabama. To further their understanding of the Tuskegee Airmen and their experience, the NPS study team also conducted a workshop with several of the airmen at the Mighty Eighth Air Force Heritage Museum near Savannah, Georgia, and sent many of them a questionnaire asking for their input and insight into this project.

Historic Background

When studying the role of the Tuskegee Airmen and African Americans in World War II, it is important to understand the history of African

Americans in the military. African-American men and women have continually played a significant role in the United States military and its colonial predecessors. They not only fought to enter the armed forces, but when finally accepted by the government, they had to work under segregated and unequal conditions and prove their abilities. Although the Civil War offered many African-Americans an opportunity to fight for freedom and equality, black soldiers still encountered blatant racism, discrimination, and segregation. Nonetheless, many African Americans continued to fight in America's wars with the hope that they could achieve freedom, equality, and respect. This racism, discrimination, and segregation continued in the military and in society well until the 20th century. For example, while two million African Americans responded to the call to fight in World War I, the military accepted only 400,000 black recruits and assigned many of them to non-combatant roles and menial tasks. The Marine Corps and Army Air Corps simply banned African Americans altogether by claiming that they lacked the qualifications for combat duty. After the war, the armed forces used the 1925 War College Study regarding the use of black troops as an excuse to deny African Americans positions of leadership and skill in the military, and continued to reduce the number of existing black units. The Army Air Corps and the Marine Corps remained closed to African Americans while the Coast Guard admitted only a few men to low-level positions. The struggle of African Americans to join the Air Corps and become combat pilots during World War II played out against this background of official discrimination.

After much pressure from the black press and civil rights groups such as the NAACP, the Army Air Corps finally decided to establish a segregated, all-black pursuit squadron based in Tuskegee, Alabama. Tuskegee Institute received a contract from the military to provide primary flight training, while the army built a separate air base, Tuskegee Army Air Field, for advanced training. Technical training for the support personnel was completed at Chanute Field in Illinois. After receiving financing from the Julius Rosenwald Fund, Tuskegee Institute built Moton Field between 1940 and 1942 to house the flight school operations. The school selected African-American contractors to design and build the facility, while skilled workers and students from Tuskegee helped complete the field, which was dedicated in 1943 in honor of Robert Russa Moton, the second president of Tuskegee Institute. When the air field was finally completed, it included a grass airstrip, two hangars for aircraft, a control tower, a locker building, a club house, several wood buildings for offices and supplies, a few brick structures for storage, and an area for vehicles and their maintenance.

On July 19, 1941, twelve aviation cadets and one student officer, Captain Benjamin O. Davis, Jr., reported to Tuskegee Institute to begin flight training as the first class of African-American pilot candidates in the U.S. military. By November, only six of these cadets had demonstrated the necessary skills, passed the training course, and were transferred to Tuskegee Army Air Field to complete their pilot training with the Army Air Corps (Army Air Forces). On March 7, 1942, the first class of African-American aviation cadets graduated from Tuskegee Army Air Field and became the nation's first black military pilots. The significance of this event should not be underestimated—after years of struggle, African Americans were finally accepted and commissioned as pilots and officers in the United States Army. The successful training of these pilots at Tuskegee, coupled with the United States' entry into World War II, led the military to expand its African-American aviation program. Consequently, the Army Air Forces established another African-American unit, the 332nd Fighter Group, and began plans for a segregated medium bomber group known as the 477th Bombardment Group.

Based on their research, the study team determined that the importance of the Tuskegee Airmen not only deals with their primary training at Moton Field and their courage in battle during World War II, but also embraces the struggle to end racial discrimination and segregation in the U.S. military and in American society. Members of the 477th Bombardment Group, frustrated with their "separate but equal" training, staged an important non-violent demonstration to desegregate an officer's club and helped set the pattern for protests later popularized in the modern civil rights movement. The airmen also include the thousands of African-American men and women in civilian and military support groups, whose dedication and

Moton Field during World War II.

heroism helped pave the way for President Harry S Truman's executive order to desegregate the military on July 26, 1948. In addition, the significance of the Tuskegee Airmen encompasses the history and development of Tuskegee Institute and its efforts to establish a military flight training program for African Americans at Moton Field, despite the resistance of many who believed that African Americans lacked the skills and intelligence to learn to fly. These accomplishments are nationally significant and worthy of commemoration, and the study team considered the remaining resources at Moton Field the appropriate place to establish such a historic site.

Since the study team determined that Moton Field and its link to the Tuskegee Airmen was nationally significant and had potential as a unit of the national park system, a detailed study of possible management alternatives for the site was then conducted. Private individuals and representatives from the National Park Service, the State of Alabama, the City of Tuskegee, and Tuskegee University attended an "Alternatives Planning Meeting" in Montgomery, Alabama, to discuss the possibility of a National Park Service unit at Moton Field and its impact on the surrounding community. Based on the study's research and the information gathered at this meeting, as well as the responses from the Tuskegee Airmen questionnaire and workshop, the study team prepared five alternatives for the development of the Moton Field Site.

Alternative A—Commemoration/Information: Moton Field

Alternative B—Commemoration/Interpretation: Tuskegee Airmen & Moton Field

Alternative C—Living History: The Tuskegee Airmen Experience

Alternative D—Tuskegee Airmen National Center: A Historical Continuum

No Action

After completing a draft of the special resource study, the study team held several information meetings to begin the public review process and assess the level of support for the project alternatives. From the participants' input and responses, alternatives C and D gained the most support, including that of several airmen, Congressman Riley, the City of Tuskegee, the State of Alabama, Tuskegee University, and other individuals. After his briefing, Congressman Riley decided to move forward with legislation as quickly as possible, especially since the number of remaining Tuskegee Airmen is dwindling and the resources at Moton Field are deteriorating. His office then asked the park service to help them draft legislation to establish the Tuskegee Airmen National Historic Site based on alternatives C and D. After many discussions between the National Park Service, Tuskegee University President Benjamin Payton, and Congressman Riley's office, legislation was introduced in the House of Representatives on July 14, 1998. However, both Congress and the President must approve the bill before the Tuskegee Airmen National Historic Site can be established. If Moton Field is designated as a new unit of the national park system, the Service will develop a comprehensive management plan in cooperation with the Tuskegee Airmen, Tuskegee University, other organizations, and state and local officials. Hopefully, this will occur soon so the remaining airmen can see their legacy honored at the proposed historic site.

Christine Trebellas is a historian in the Southeast Support Office of the National Park Service and worked on the Moton Field/Tuskegee Airmen Special Resource Study with Barbara Tagger (Historian, NPS) and Rick McCollough (Project Manager, NPS).

Photos courtesy NPS, Southeast Regional Office.

For more information contact: Tuskegee Airmen Study, National Park Service, Southeast Regional Office, Atlanta Federal Center—1924 Building, 100 Alabama Street SW, Atlanta, GA 30303.

Left, hanger #1 at Moton Field during World War II. Right, hanger #1 at Moton Field in 1997.

Dena Sanford, Laura Johnson, and Carolyn Wallingford

Developing Hantavirus Mitigation Procedures for Cultural Resources

During the summer of 1996, an interdisciplinary team of National Park Service (NPS) employees developed Hantavirus mitigation procedures as an integral element of a preservation project to stabilize and partially restore a modest, three-room frame cabin at Agate Fossil Beds National Monument in northwestern Nebraska. The Harold J. Cook Homestead Cabin, or "Bone Cabin" as it is also known, is nationally significant for its association with early 20th century paleontological investigations of fossil deposits in the Niobrara River Valley. The mitigation efforts affected all aspects of the work, from the decontamination, removal and storage of architectural and artifact samples, to structural stabilization and exterior restoration. The preservation treatment represented a synthesis of traditional preservation and conservation procedures, historic accuracy, and health and safety concerns.

The preservation strategy for this project was to restore the exterior of the Bone Cabin to the primary historic period of 1909-1923 During this period, the cabin evolved from a one-room to a three-room homestead structure, then to a summer headquarters for excavation at the nearby buttes. Following limited seasonal use and two short periods of domestic use, the Bone Cabin was abandoned in 1951. Over time, its structurally minimal design, vandalism, and the impact of severe weather conditions contributed to its decline.

Because the emphasis on the work was the significance of the structure as an interpretive form on the landscape, the cabin was to be stabilized, the exterior to be restored, and the interior surface materials to be removed. With the exception of selected wall, ceiling and floor samples, interior finishes would not be retained. The samples were collected for their intellectual content, and interpretive and archival reference. This was of particular importance because a concurrent goal of the project was to identify and document the evolution of the cabin from the period of about 1904 through the 1950s, as part of information collection for a historic structure report. The building would not be occupied following completion of the project, nor would it be open to the public.

The Disease

The impetus for this activity was the 1995 confirmation of Hanatvirus-positive mice in the general area of Agate Fossil Beds. The Hantavirus has gained national attention following the 1993 "outbreak" in the Four Corners Area; however, the disease itself has been present for centuries, in numerous strains. On the North American Continent, the disease is associated with Hantavirus Pulmonary Syndrome (HPS). It is carried by rodent hosts. Of the nine Hantaviruses indigenous to North American rodents, the most common virus documented for transmitting HPS to humans is the Sin Nombre virus. Its primary rodent host, the deer mouse, is the most abundant mouse in the United States.

The HPS causes a respiratory infection that initially causes flu-like symptoms. Following an incubation period of one to five weeks, the first signs include fever, chills, sweating, coughing, muscular and abdominal pains, nausea and vomiting. Without medical attention, fluid builds up in the lungs, adult respiratory distress syndrome occurs, and death can follow in an average of five days. Early treatment in an intensive care unit is important for surviving the infection. While the antiviral agent, ribavirin, has been effective in treating HFRS, treatment of HPS patients has not been shown to dramatically reduce mortality.[1]

Hantaviruses produce a lifelong infection in rodents without any apparent disease to their hosts.[2] The viruses "emerge" when ecological disturbances bring hantavirus-infected rodents into closer contact with humans.[3] In the Four Corners region in 1993, the local deer mouse population grew to 10 times that of the previous year, greatly increasing instances of infection.[4] In the initial group of patients, approximately 80% died.[5] Five months after the outbreak, the Sin Nombre virus strain had been identified and confirmed in 42 people in 12 states. Half of the 26 case patients that died had come from the Four Corners area.[6]

Although the highest caseloads of HPS still occurs in the Four Corners states, all states within range of the deer mouse are susceptible to the Sin Nombre Virus. As of August 3, 1998, the Centers for Disease Control and Prevention (CDC) Internet website notes that variations of the disease have been identified in 29 states, with 188 cases

reported. New treatments have been applied with some success, and the overall mortality rate has dropped to approximately 44%.

Viral transmission occurs in several ways: by inhalation of dried airborne particles of the rodents' saliva, urine, feces or carcasses; through broken skin or the eye; through rodent bites; or through ingestion of contaminated food or water. Virus exposure has been linked to such activities as heavy farm work, threshing, sleeping on the ground, and military exercises.[7] The duration and period of maximum infectivity are unknown, nor is the virus' survival rate after being shed in the environment.[8] Fleas, ticks, cats, and dogs are not known to transmit the disease to humans.[9] At the time of this writing, the CDC maintains that humans have not transmitted the virus to each other in the U.S.

Preliminay NPS Mitigation Efforts

In response to the health and safety issues raised by this disease, the NPS initiated steps in the fall of 1993 to reduce the probability of contact and infection. Subsequent guidelines adapted from CDC recommendations emphasized control and prevention rather than eradication of the host species.[10] This was to be achieved by eliminating rodents inside the home and work spaces, and preventing their re-entry. Rodent-proofing strategies included:

- Reducing the availability of food sources and nesting sites inside the buildings;
- Covering all openings greater than or equal to 1/4 inch, using steel wool, cement or screens; and
- Reducing rodent shelters and food sources within 100 feet of the occupied building.

The 1993 guidelines for rodent reduction and decontamination required initial ventilation of seasonal-use buildings and other structures that had remained closed for a period of time. A minimum 30-minute airing using an exhaust fan or cross ventilation was considered adequate time to remove any aerosolized virus. Following this provision, NPS interim measures recommended thoroughly cleaning areas displaying evidence of rodent activity, while avoiding raising dust or dirt into the air.

Destruction of the virus is dependant upon penetrating its protective shell. The virus' cell structure, the lipid envelope, is made of a fatty substance that is insoluble in water and serves to shield and protect the virus. It is susceptible to organic solvents such as diluted hypochlorite solutions or ethyl alcohol of 70%. These types of solvents can be found in most general-purpose household disinfectants.[11] The 1993 NPS guidelines specified saturation with a solution of detergent, water and a general-purpose household disinfectant solution for cleaning floors and other durable surfaces. A second wiping down with a general-purpose disinfectant was optional. In lieu of a household disinfectant, the guidelines suggested a hypochlorite solution prepared by mixing three tablespoons of household bleach in one gallon of water.

All infected material, dead rodents, rodent nests and other tainted items were to be "double bagged" by placing them in polyethylene bags, sealed, and then placed in a second plastic bag and sealed. This bagged material was to be buried in a two to three foot hole, or disposed of according to local or state health department codes.

Special precautions for buildings with heavy rodent infestation, including vacant dwellings, required that workers wear plastic or rubber gloves, and protect their lungs with a half-face air-purifying respirator or Powered Air Purifying Respirator (PAPR) equipped with High Efficiency Particulate Air (HEPA) filters.[12]

A document in 1994, Technical Data Bulletin #110, January 1994 "Hantavirus Infection," goes beyond those recommendations given in the Park Service document to suggest even more extensive protective covering, including disposable coveralls, rubber boots or disposable shoe covers, rubber or plastic gloves, and protective goggles.[13]

Hantavirus Mitigation for Cultural Resources

In 1996, an interdisciplinary NPS team began restoration work on the Agate Fossil Beds' Bone Cabin. The decision was made early in the planning phase to proceed with the assumption that the Hantavirus could be in the area.

Preliminary decontamination, selective demolition and materials disposal were carried out by a team experienced in Hantavirus mitigation. Because formal mitigation training was not available, the team devised their protection procedures based on CDC and NPS guidelines. Some additional protective measures were taken by the team leader and approved by the Occupation Safety & Health Administration (OSHA). The mitigation team's protective clothing included full Tyvek suits, half mask air purified respirators with HEPA filter protection, splash goggles, booties and rubber gloves. For additional protection, the team wore heavy latex gloves under the rubber gloves. Organic/acid paper cartridges with HEPA pre-filters were used to protect against chlorine fumes. Ankle and wrist openings were sealed with duct tape.[14]

The Bone Cabin mitigation procedures followed much of the earlier CDC and National Park Service recommendations, with modifications to incorporate historic preservation principles and conservation measures. Because the focus of previous recommendations was health and safety, minimal written guidance was available involving alter-

Bone Cabin c. 1912-1914. Bedroom addition is on the left, main cabin at the center, and summer kitchen with attached wood shed on the right. Photo courtesy Agate Fossil Beds National Monument Collection.

native and less alkaline disinfectants for fragile historic materials. The NPS hantavirus health and safety standards for disinfectant solution require (by volume) a minimum of 10% household bleach. To date this formula has proven to be an effective approach when dealing with materials which are not intended for long term curation. However, the disinfectant mixture can be imprecise depending on product performance, the size of the application canister, and the type of measuring device used.

A 10% bleach to water solution was used on the wood members for the bulk of the mitigative efforts. The use of diluted bleach on wood members was considered a minimal concern due to the comparatively low pH variation between wood and bleach that would minimally effect the structural or cellular stability of the wood framing, siding, or finishes. The bleach solution contacted primarily surface areas and only a small percentage penetrated the wood substrate.

Shifting somewhat from a traditional curatorial approach for museum collections, the NPS staff customized procedures in order to disinfect the historic fabric samples and artifacts; to prevent their loss or destruction and rapid deterioration; and to minimize acidic contamination.

Lysol spray was used to penetrate the virus' lipid envelope. Its active ingredient, O-phenyl phenol, reduced the biological threat, and was a more neutral compound that would not bleach or cause fading. The pre-mixed spray offered better cover control of the aerosolized disinfectant to a precise targeted area, and limited damage to the surface and substrate of the recovered materials. Isopropyl alcohol in a distilled water solution could also have been used as an alternative disinfectant.[15] This aspect of the project was speculative because it was not known whether the objects might suffer permanent damage.

Prior to any action on the building, a written and photographic documentation methodology systematically recorded historic materials before, during and after their removal. This approach maintained research integrity and provenance by linking the recovered architectural materials and other objects to their original physical locations.

Also prior to decontamination and demolition, representative materials samples of the wall, ceiling and floor finishes and trim details were removed by the properly-equipped mitigation team, and treated outside of the building. As an added precaution, the outdoor treatment procedure was undertaken with face masks and latex gloves.

Many of these salvaged materials were water soluble or at least had the potential for water solubility. For this reason, spray application was superior to a brush or cloth application method to ensure control. Working in the field, questions of the stability or fugitive nature of ink, dye, or paint designs were unknown, nor whether the upper layers of the wallpaper samples might delaminate from the substrate. To avoid jeopardizing the integrity of the material and risk losing the pattern or the entire surface of the paper through short and long term storage, small areas were first tested with the Lysol spray. Neither bleeding nor migration of fugitive dyes occurred.

Following selective material sample removals, the team sprayed down all wall, ceiling and floor surfaces, sprayed in the crawl space, and washed out wall cavities of the west room. A mixing container with a control dial was filled with liquid Clorox bleach and attached to the end of a garden hose equipped with an adjustable nozzle. The nesting material and debris were washed out of the building, collected with shovels, and placed in trash bags. The bags were sealed with duct tape and disposed of in a local and state approved refuse landfill. The team disinfected themselves after each phase of selective demolition work by spraying themselves down with the bleach-to-water solution prior to removing their protective suits and masks.

As the clean out progressed more unexpected objects were found and treated with Lysol spray in the same manner as the representative finish samples. The salvaged items were diverse and included 20th century wood by-products and paper-base materials, linoleum, wood, leather, and flat glass. Differences in chemical composition characterize these objects: the wood and linoleum samples are

considered organic materials, while glass is inorganic. Again, a bleach solution was simply not a preferred option because the goal was to preserve the analytical potential of these objects. All samples were air dried, tagged with an identification code, and double bagged, and placed in temporary storage. The treatment application was intended to mitigate the biological threat and protect the cultural resources against further loss, material weakening, and other forms of deterioration.

Cooperation with the mitigation team allowed recordation of unforseen findings to proceed in a safe manner. Discoveries including cardboard box wall covering from the 1930s or 1940s, the Harold Cook-era tongue and groove wallboard, and an encased door answered some important questions about how the cabin had been used by its consecutive inhabitants.

Spraying down the exterior wall in the mitigation effort.

The wallboards created an interesting dilemma: because the tongue and groove boards were installed by Harold Cook as a finish material, the decision was made to retain the material while disinfecting the wall cavities, and discourage future nesting. The solution was to wash out the cavities from the exterior. The condition of the original exterior shiplap siding was too poor to salvage, so select boards were removed in order to access the stud wall cavities. The same garden hose with a bleach-to-water filled container was used to flush out the cavities.

To discourage future nesting, fine steel wool was inserted into any accessible cavities, while the stud walls of the kitchen and main cabin remained exposed. All openings 1/4 inch or larger were covered with sections of sheet metal, in a manner similar to the method used by the original occupants. A rodent trapping program will be implemented by the park unit to assist in the rodent population reduction program.

Restoration and stabilization then commenced, with some precautions still in place. The protective mitigation clothing was not worn during this phase, due to the extensive disinfection with bleach solution, and the fact that the remaining construction work was primarily on the exterior.

Nearly one year after their removal, a Level II assessment of the sample materials and artifacts was performed to review and evaluate their intrinsic value. The cardboard samples contained documentary printed information useful in the interpretation of the period and the structure. However, because cardboard contains a large percentage of lignin and is highly acidic, it presented tremendous preservation problems.

The objects were unbagged and surface cleaned. Surface cleaning was accomplished using a vacuum and crevice tool attachment or a soft bristle brush. Proper equipment included a hand-held HEPA filter vacuum, a dust/mist respirator and latex gloves. All of this work was conducted in a well ventilated work staging area. Photo-documentation of all the inherently acidic objects captured their intellectual content; the images would become part of the object catalog file. With their useful information documented, the actual cardboard was discarded.

After cleaning and documentation, the samples were then considered treated, and boxed for storage. The samples had been stored previously in an unmonitored building, and some wood or paper-base materials may have accumulated additional moisture. Such samples have been returned to the same location, and will be tested for moisture content in the near future. A selection of fabric, paper and composite samples have been sent to a conservation laboratory to begin the process of conservation.

The success of this project is largely due to a shared preservation philosophy and an integrated, holististic planning process that addressed many long term preservation issues in the context of an immediate biological threat to human health and safety. The structure and historic fabric will continue to serve as primary sources of cultural and scientific information and further support the

park's resource management and interpretive programs.

Long term storage and preservation issues at the Bone Cabin make this case study valuable for future projects. Similar mitigation procedures have since been undertaken at other parks in the Midwest Region, but it is worth noting that in any hantavirus mitigation project, some improvisation and compromises will be necessary. For these and all future Hantavirus mitigation work, proper safety clothing and protection equipment is essential. Each team member who is expected to work in an area believed to harbor pests must receive a medical examination to determine the individual's fitness to wear a full face respirator. In addition, thorough recordation procedures and well-conceived storage recommendations or plans should be in place prior to initiation of the work.

Notes

1 Ali S. Kahn, et al., "Hantavirus Pulmonary Syndrome: The first 100 Cases," *The Journal of Infectious Diseases*, 173 (1996), 1300; and The Centers for Disease Control and Prevention, "Hantavirus," subtitle Treatment, <http://www.cdc.gov/ncidod/diseases/hanta/hps/physician/ treatment.htm>, July 1997. Comparatively, the mortality rate for HFRS in Eurasia is 2% to 10%. See The Centers for Disease Control and Prevention, "Hantavirus" subtitle Other Hantaviruses.

2 Brian Hjelle, M.D., "Hantaviruses, with Emphasis on Four Corners Hantavirus," Department of Pathology, University School of Medicine, 14 March 1995,<http://www.bocklabs.wisc.edu/ed/hanta.hatml> May 1997.

3 Kahn, note 1 at 1301.

4 The Centers for Disease Control and Prevention, "Tracking a Mystery Disease: the Detailed Story of Hantavirus Pulmonary Syndrome," <http://www.cdc.gov/ncidod/diseases/hanta/hps/outbreak.htm#OUTBREAK>, July 1997.

5 Hjelle, note 2. Dr. Ali S. Kahn of the CDC notes that the retrospective diagnosis of case-patients from as early as 1959 previously occurred and resulted in HPS, but went unrecognized. See Kahn note 1 at 1301.

6 "Technical Data Bulletin #110 January 1994, Hantavirus Infection,"(3M company?, photocopy), 1.

7 Connie Schmaljohn and Brian Hjelle, "Hantaviruses: A Global Disease Problem," *Emerging Infectious Diseases*, 3:2 (April-June 1997), 95; Charles R. Vitek, et al., "Evidence Against Infection with Hantaviruses Among Forest and Park Workers in the Southwestern United States," *Clinical Infectious Diseases* 23 (August 1996): 283-285; and The Centers for Disease Control and Prevention, "The Rodent Connection,"<http://www.cdc.gov/ncidod/diseases/hanta/hps/transmit.htm>, July 1997.

8 "Hantavirus Infection Interim Recommendations for Risk Reduction," Public Health Service, National Park Service (November 1993), 2.

9 National Park Service, "Hantavirus Disease Health and Safety Update," *Conserve O Gram* 2 no. 8 (July 1995), 1.

10 The guidelines produced by the NPS were established in the November issue of the "National Park Service Hantavirus Infection Interim Recommendations for Risk Reduction." See also "Centers for Disease Control and Prevention: Hantavirus Infection-Southwestern United States. Interim Recommendations for Risk Reduction," Morbidity and Mortality Weekly Report 42 no. RR-11 (1993), 1-13.

11 David L. Levy D.O., "Hantavirus Pulmonary Syndrome: Outbreak of a New Disease Caused by a New Virus," *Postgraduate Medicine* 97 no. 3 (March 1995), 127-139; Monona Rossol, Industrial Hygenist with Arts, Crafts & Theatre Safety, Inc., telephone conversation and electronic mail to Carolyn Wallingford, May 1996; Wendy Jessup, Jessup and Associates, Inc., telephone conversation to Carolyn Wallingford, April 1996.

12 A cautionary note was made in the "Technical Data Bulletin #110 January 1994, Hantavirus Infection," (3M?), page 2, that there was no way to determine the efficacy of any respirator for use in protection against bioaerosols.

13 Ibid., 3.

14 Rossol. Rossol confirmed the protective measures recommended by the CDC.

15 Jessup and Rossol.

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Barry Sulam

Native Americans Come to the Rescue of America's Historic Coastal Forts

The Navajo Nation has had a long tradition of producing brave young men who have fought for the United States. During World War II, they distinguished themselves as the Code Talkers throughout the Pacific theater. Once again young men—this time masons—are leaving the Navajo Reservation to rescue their buddies, who are combating the nearly relentless deterioration of some of the finest examples of brickwork produced by the Corps of Engineers. The masonry of the historic coastal fortifications, now under the stewardship of the national park system, have been in need of some heroic efforts to save them from the ravages of the marine environments. The Native American masons who have responded to this call for help from coast to coast have journeyed over land and sea to serve their country once again.

These seasonal masons were recruited to help out at Fort Jefferson in the Dry Tortugas National Park on the East Coast and, concurrently, the Golden Gate National Recreation Area's Fort Point. Their availability to help the forts was due to the Regional Director John E. Cook's standard operating procedure for interdependently sharing resources throughout the park system. When the calls came from the parks to help with project funded masonry work on some of the most impressive and oldest of the coastal forts, the Support Office in Santa Fe went to work creating Internal Partnerships to solve the lack of skilled historical masons.

There had been a longstanding connection between the Santa Fe office and the park units inside the Navajo Reservation for shared training for Navajo speaking maintenance workers and for mobilizing roving ruins preservation crews. This collaboration continues today in many new aspects such as the Vanishing Treasures Initiative, where older masons nearing retirement will train new recruits seeking a career in preservation of the ancestral puebloan architecture and other ruins sites that are located throughout the Intermountain region. The call to help save the coast to coast forts was certainly a new one for all involved.

Fresh out of San Francisco, Superintendent Nancy Stone, of Hubbell Trading Post National Historic Site, was ready to help in every way possible when the Presidio was damaged by winter storms several years ago. She continued the collaborative efforts with those in Santa Fe who were busily mobilizing work forces from several parks in the new Intermountain Region for the sake of the many historic structures that had been recently abandoned by the Army. Once the recruiting efforts were accomplished locally in Ganado, Arizona, there was a core group of young workers eager to follow the lead of their Project Leaders, Taylor Tsosie and Delbert Brown. These two more experienced preservation specialists had left the reservation to join the Santa Fe office a decade earlier following a path blazed by three generations of Navajo-speaking park service ruins stabilization masons. Nancy and her staff provided a steady stream of seasonal helpers who were assigned to projects closer to home after their coastal rescue missions were over. Projects at Pipe Springs National Monument and Hubbell Trading Post were supported by this multi-park shared resources concept. In return, Superintendent John Hiscock of Pipe Springs loaned one of his seasonal masons for roving assignments. Over the past five years, several other superintendents have shared workers who filled in behind the down sized former regional preservation crew. These parks include: Aztec Ruins National Monument, Mesa Verde National Park, Fort Smith National Historic Site, Hot Springs National Park, the Long Distance Trails Office, Rocky Mountain National Park, Tumacacori National Historic Park, Carlsbad Caverns National Park, and Fort Frederica National Monument. Finally, there have been partnerships with non-NPS workers who have helped immensely including: the Getty Conservation Fund, the NCCC from Americorps of the National Service Corporation, the National Guard, and the Northern Pueblos of New Mexico.

Recently two more superintendents, whose park units are in the Navajo lands, have recruited four more helpers for the Fort Point project. Anne Marie Fender of Canyon de Chelley National Monument and James Charles of Navajo National Monument have successfully recruited and selected skilled masons for the arduous tasks that lay ahead of them under the shadow of the Golden Gate Bridge.

There are great similarities between the work at Forts Point and Jefferson due to the use of the same technology for protecting the embrasures along the curtain walls of these masonry Goliaths. Brig. Gen. Joseph G. Totten, of the Corps of Engineers, pioneered the cast iron shutters that have been named after him. These Totten Shutters would be pushed open when

the cannons were prepared for firing by the artillerymen and would close automatically after the round was fired, thus protecting the soldiers from enemy fire. These same cast iron reinforced embrasures are the cause of the accelerated deterioration at the forts today. When the marine environment saturates the fort with moisture there is a continual oxidation process within the cast iron and after a century and a half the oxide-jacking forces of these rusted members is too much for the old masonry to resist. Overnight entire wall veneers have been known to disengage from the core of these massive walls and slough off into the moats that surround the fort.

A decade of continuous efforts have netted considerable success at Fort Jefferson's front casemates, on either side of the sally port, that greet the visitors who are disembarking from the boats and seaplanes which are the only available transport to this remote island in the Florida Straits. At Golden Gate's Fort Point, which was saved from destruction by the engineer who designed the Bridge that towers over it today, the visitor comes into intimate contact with the same problem embrasures. Fortunately for these visitors, who jog everyday around the fort's seaside location, the walls have been repointed and the hostile marine humidity has been less destructive on the cast iron shutters and reinforcing plates.

The masons from the reservations in the Southwest have worked with many other partners who have been trying to arrest the advanced deterioration. The Historic Preservation Training Center's Tom McGrath was the author of the Historic Structures Report that outlined the intricate steps to save Fort Jefferson a decade ago while he was an historical architect at the Denver Service Center. The former Southeast Region's preservation specialists implemented the prototype of the stabilization efforts at the Fort. Now he sees to it that a regularly scheduled detail of masons from the Training Center join forces with the roving crews out of Santa Fe's Architectural Conservation Program who are led by Jeff Brown, Project Manager for both coastal efforts.

Jeff Brown, Jake Barrow, and Gary Smith, all hired as supervisory exhibit specialists and now called Project Managers for the Support Office in Santa Fe, have enabled several years and millions of dollars of collaborative efforts. They have brought together over 20 workers from the Western, Midwest, and Southeast regions to merge seamlessly with those preservation crew members who have been loaned time and again from the many parks of the interdependent clusters that comprise the Intermountain region. Sometimes working on short notice, they have been able to field select preservation specialists and their helpers on a service-wide basis throughout their tenure with the Intermountain and formerly the Southwest Region of the National Park Service.

This can-do attitude is rewarded every time a Superintendent says, "Yes" to the call to share their resources with parks in need. Keeping traditions like those that led to the Navajo Code Talkers who had preserved their unique language and thus helped win a war, will serve the Park Service well in meeting the needs of its aging cultural resources that are under attack.

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Larry Benallie, Jr.

The Ganado Project

The Navajo Nation Archaeology Department (NNAD) conducted an archeology field school for Ganado High School students during the summer of 1997. This was made possible through a Historic Preservation Fund grant from the National Park Service, Tribal Historic Preservation Program. It is part of NNAD's effort to influence and change the way archeology and anthropology are conducted on Navajo lands—making them more beneficial and worthwhile to the Navajo people.

When archeologists and anthropologists began exploring the ancient cultures of the southwest in the late 1800s they came for a specific reason—to gather as much information as possible before our cultures disappeared forever and to stock museum shelves with "primitive" artifacts. Most considered nothing offlimits—ceremonies, songs, sandpaintings, origin stories, clan stories, human remains, pottery, rugs, Kachina dolls, and baskets are just some examples of the thousands that were collected and shipped back to museums in the east.

Because of their obvious disregard for Native concerns and beliefs, the "scientists" were little more than cultural thieves. To make matters worse, they produced numerous books and writings about their work and became renowned using knowledge they took from us. They became experts on Indian cultures without ever understanding what it was to be Indian.

This past behavior has placed the profession of archeology and anthropology in such a bad light that it is difficult to make Navajo and Indian people understand that the profession is attempting to change its methodology and approach to conducting cultural resources work on Indian lands. It hasn't been an easy task trying to live down the past of so many.

With the passage of federal laws, including the Native American Graves Protection and Repatriation Act (NAGPRA) and the Archeological Resource Protection Act (ARPA) as well as the creation of tribally-run archeological programs, we as Navajo people have been trying to change how archeological and anthropological work is conducted on the Navajo Nation. One of the most difficult aspects has been trying to convince our traditional people of the necessity of our work and at the same time accommodating our own beliefs with that of the profession. Still those of us who are Navajo or Indian and have chosen this profession keep trying. We believe that we are clearly the people who are the most qualified to protect our own cultural resources.

The Navajo Nation, for the last several years, has begun to incorporate and use traditional Navajo philosophy as a basis for running its government and naturally this applies to how we attempt to preserve and protect the cultural resources of the Nation. This includes extensive interviewing of traditional people, especially the *hataalii* (Chanters/Medicine Men) and hiring them as advisors.

Like many others, NNAD has been involved with educating children and young adults with lectures and presentations. One such presentation led to the implementation of the Ganado Archeological Project (GARP). Educational opportunities such as these may be one ideal way to teach Navajo people about our work—not to necessarily teach about our culture, but to teach about the value of our work, how and why it is being conducted today, and how it can benefit the Navajo Nation as a whole. It is not our intent to "convert" any Navajo person to the anthropological and archeological way of thinking, but to teach them about the cultural resources of the Navajo Nation, and to introduce them to the concept of cultural preservation, and the importance of protecting these unique and irreplaceable cultural resources forever.

In 1996 we were asked to give a presentation to an anthropology class at the Ganado High School in Arizona. During the course of our talks we learned that the teacher had proposed to take his class to an actual Anasazi site and had presented his plan to the teacher and parent school board. The parents were outraged and gave a definitive no to his plan. Traditionally, Navajo people avoid contact, whenever possible, with Anasazi remains and they were not about to let their kids be exposed. With that in mind, it was not just a process of hiring these students for this project, it was also appropriate and proper for us to obtain their parents permission.

In the summer of 1997, four Ganado High School students were hired by NNAD to participate in this small archeological field school. This author and Grace Morgan (both Navajo archeologists) co-directed the project. The students, inexperienced at the time, would help record three important archeological sites located on the Navajo Nation.

The students were taught the methodology of how to record and map archeological sites, and were introduced to the methodology of ethnographic interviewing. The students were taken on trips to Chaco Canyon, Jeddito, Arizona, and Navajo National Monument. The students' outlook seemed to change over the summer. It was just a summer job to them in the beginning. But as time went on it was clear that they began to appreciate and respect the grandeur of the cultural resources which were all around them.

The Ganado Site was the first Anasazi site we recorded, located near the Hubble Trading Post National Historic Site, at Ganado, Arizona. This site is a large and sprawling Anasazi village sitting on the edge of the Pueblo Colorado Wash which was occupied from 700 A.D. to 1100 A.D. There are hundreds of living areas and rooms located across the site, five Basketmaker III great kivas, and a Chaco-style great house and tower kiva. The site covers an area measuring 85 acres. It took six of us more than a month to record this site. Upon completion there, we had recorded over 500 different features. It was an intense and extensive first experience for the students.

The Ganado Site is one of two local sites, the other called Bad Dog Ridge Site Complex, which too is comprised of extensive Basketmaker III remains, two Basketmaker III great kivas, a Chaco-style great house, and situated along a large drainage (Wide Ruins Wash). The sites are remarkably similar in terms of site morphology and plan. These sites appear to date to the same time periods, from A.D. 700-1200. The areas drained by the Pueblo Colorado Wash and the Wide Ruins Wash appear to have been a valued location for the establishment of large and complex Anasazi habitation sites. The proximity to quality farmland and water no doubt is a primary consideration in interpreting this phenomenon but these are not the only explanations and this merits further archeological investigation.

Upon completion of work in Ganado, we then moved into the Wide Ruins, Arizona area and recorded a site known as Black Rock Gaddy (*Tselizhini*). *Tselizhini* is another Chaco-style great house, surrounded by a community of roomblocks. The great house rubble mound, with a 40-meter long back wall with 5 meters of relief, is much larger than the Chaco great house we recorded in Ganado. There was no Anasazi road visible at the Ganado great house, but there is a possible Anasazi road at *Tselizhini* running in front of the pueblo. The road heads east toward the well-known prehistoric pueblo of *Kintiel* (Wide Ruins) and west toward an artesian well known as Tanner Springs, Arizona. In-field ceramic analysis indicates that the people at *Tselizhini* were in contact with other Anasazi people from Chaco Canyon, Showlow, the Hopi Buttes area, and from

Kayenta. This site was probably occupied for about 100 years, between A.D.1100 to 1200.

The "road" located at *Tselizhini* raises some questions. What do these roads mean and what were they used for? It is clear that the road is part of the cultural and public landscape that can be associated with these types of sites. Many such roads link most of the classic Chaco Canyon sites together. Now we are finding these roads at Chaco-style ruins far outside of the Chaco Canyon area. One possible explanation presented is that these roads are like umbilical cords that link sites together in a particular area. It may have been one way for the Anasazi people to maintain a cultural and physical link to their past and their origins.

Tselizhini got its name from a Navajo man who once lived near the site. We found his corn storage room, which resembled an exposed square kiva, and began talking to the people now living in the area. We eventually made contact with his immediate and extended family. Their permission was granted to call the site by their grandfather's name, Black Rock Gaddy (*Hastiin Tselizhini*). Thus, the site was named *Tselizhini* (even his family refers to the site by this name).

While the two Anasazi sites were interesting and very complex, the last site we recorded was by far the most important for us to record and it clearly made the most lasting impression upon the students. *Kin na halzhin* (Round Black House) or *Kinazinnde* (Towering Grey House) is a Navajo pueblito site dating to A.D. 1759. This Navajo defensive fortress was occupied 100 years before the 1863 Navajo internment at Bosque Redondo (*Hwéeldi*), Fort Sumner, New Mexico.

Originally recorded in 1883 by Mindeleff, the pueblito was originally thought to be an Anasazi farmstead related to the occupation of Kintiel. Treering dates obtained during the 1930s clearly showed that the structure was Navajo and not Anasazi. Various other researchers visited the site over time the most well-known being Richard Van Valkenburg, J. Lee Correl, and David Brugge during their Navajo Land Claims investigations of the early 1960s.

Kin na halzhin sits on an isolated bedrock butte on a terrace above the Wide Ruins Wash. The unshaped stone walls once stood three stories tall. The main structure is nine meters long by four meters wide. There are associated stone hogans, fork-stick hogans, burned hogan depressions, trash middens, and human remains. Navajo sherds dominate the ceramic assemblage which include Dinetah greywares and Gobernador Polychrome. Hopi Yellow ware, which is usually found on 18th century Navajo sites, can also be found. This is one of only a handful of early Navajo defensive sites located west of the Chuska mountains. *Kin na halzhin* is larger than most of the forts located in the *Dinétah* in northwestern New Mexico and was built after the Navajo had left the *Dinétah*.

The site was the scene of defensive battles against the Utes, Comanches, and Apaches. In a sense, *Kin na halzhin* could be considered a battlefield site. Ethnographic interviewing indicates that certain sandstone blocks in the wall were removable and would be moved as appropriate to shoot arrows out of the fort and to thrust spears. What is interesting is that many of the "removable" blocks were near ground level which would allow the Navajo defenders to shoot arrows and jab spears at the legs of the horses of the attackers. Crippling the horses would, no doubt, have considerably evened the odds for the defenders. There is no indication that the pueblito or its defenders ever were conquered during any of the battles.

We have also discovered that there are several more defensive Navajo sites in the Ganado-Wide Ruins area that seem to have belonged to and to have been built by the same clan group or family. We are currently pursuing this line of inquiry and have in fact found two and possibly three of these additional defensive sites.

Sadly, over the years *Kin na halzhin* has been severely vandalized. When I first visited the site in 1990, the original log ladder was still in place at the entrance of the fort. Two weeks later, the ladder was stolen and has never been seen again. Also when I started visiting and checking on the fort, the long walls of the fort stood at least two meters high. These walls have now been kicked down to ground level and the roof beams have been used for fire wood. Only a portion of the northern wall still stands at the three story level. Despite all the damage that has been inflicted on the fort, it is still an impressive and powerful site.

In an effort to try and control the vandalism at *Kin na halzhin*, we have put up a fence so that no one can drive their vehicle up to the fort and we have put up a sign indicating to people that this is a fragile Navajo fortress that is protected by tribal and federal antiquities laws. We can only wait and see if this will be an effective deterrent to vandalism at the site. Recent site inspections have demonstrated there is little indication anyone has visited the pueblito but us.

NNAD has an important role in developing and implementing approaches to managing the Navajo Nation's cultural resources, which incorporates a distinct Navajo philosophy—they are part of our Navajo culture and history and should be respected and protected for what they represent, the strong and distinctive ties we as Navajo people have for our culture and the land. It is not an easy task and at times seems impossible, but we feel we may be making some headway in communicating with the Navajo people we serve. In fact, one of our students has returned to the department for just one more summer of doing archeology.

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Mark Weekley

A Short-Term Partnership with Long-Term Implications

Protecting a Forgotten Oasis on the Oregon Trail

Alcove Spring is an undeveloped 223-acre tract of land located in rural Marshall County, Kansas. In 1993, a group of residents near Alcove Spring came together to form the Alcove Spring Preservation Association because they feared that this special place would be lost. The Association successfully raised the funds needed to acquire the property. They found, however, that the management of a historic site presented challenges very different from the challenges of acquiring the site. Through the National Park Service-Rivers, Trails, and Conservation Assistance Program (RTCA), the Association received much needed technical assistance in the areas of management planning, resource protection, and interpretation.

Alcove Spring is listed on the National Register of Historic Places for its association with the Oregon Trail. This site is particularly well known for its association with the members of the Donner and Reed families who later met with tragedy. While this association may be the reason the site is well known today, a key part of this project was to explore and interpret the other reasons that this site is significant. In particular, this site is significant as an intact property associated with the mass migration westward. This property also helps remind visitors of the importance such camps played in terms of providing water, timber, fuel, game, forage and rest.

Frequent spring flooding of the Big Blue River made this site the first major camp and rest stop for the pioneers after leaving Independence, Missouri. For a few weeks each spring this site became a temporary city full of immigrants passing time while waiting for the river to go down. Here the pioneers had a chance to rest, reorganize, and reflect the journey ahead of them with the insight of a few days of actual life on the trail.

This site has never been developed and lies in rural Kansas farm country. The tranquility of the contemporary setting fails to convey the level of activity and congestion that must have occurred when hundreds of people and animals became blocked by the flooded river. However, this wild and rugged setting does provide an excellent opportunity to reflect on what the site must have been like in the past and consider the motivations of the emigrants who chose to take up life on a difficult trail leading to an uncertain future.

The spring and natural alcove for which the site is named was a popular oasis for travelers along the Oregon and California trails from the 1840s to the 1870s. Near the spring are stones which contain numerous carvings showing the names and dates of those who rested or were buried near this site on their way west. Sarah Keyes, the mother-in-law of James F. Reed died here in May of 1846. A memorial marker was erected in the early 1950s in memory of her. Swales created by wagons cutting across the prairie are still visible. Much of the site's vegetation is tallgrass prairie which has a great diversity

Alcove Spring in 1996. Photo by the author.

Graphic from one of the site"s interpretive brochures.

of plant species due to the fact that it was never disturbed by plowing. While the site has a high degree of historic integrity, the annual visitation of about 10,000 people began to have an immediate and adverse impact.

The Association was committed to preserving the site, but they were equally committed to providing access to the public. The tandem goals of resource preservation and public access seemed to be in opposition to one another. Recognizing this, the Association realized that they needed help from others who have struggled with this challenge elsewhere. The Association first received advice and assistance from the State of Kansas and the National Park Service Long Distance Trails Office in Utah. As a part of these early efforts, staff from the RTCA program in Omaha were invited to help make recommendations as part of a one-day workshop. This soon evolved into a two-year commitment from the Omaha RTCA office.

While a fair amount of general information about the history of the site was available, there was little specific information about the historic resources at the site. Those resources that were identified, such as stone carvings and large tracts of tallgrass prairie, were deteriorating at a rate accelerated by visitation. These problems were rooted to a degree in the lack of management goals and policies for the site, combined with a lack of development designed to protect resources and accommodate visitor needs. This fact became obvious when a group of "black powder" enthusiasts requested permission to build large permanent practice targets in the middle of this historic property. Lacking clear policies for the management of the site, the Association was uncertain how to respond to this and other requests for the use and development of the site.

Building on assistance provided by the State of Kansas and the NPS Long Distance Trails Office, RTCA staff began a systematic process of identifying problems and developing solutions. The process began with visits to the site, review of available literature, and interviews with people knowledgeable about the site. This information then was used to help design brief public workshops focused on clearly articulating the problems and issues related to the care and management of the site. These workshops, organized and facilitated by RTCA staff, were open to everyone who had an interest in the site. A key role played by the RTCA staff was to bring in subject matter experts to provide advice in areas such as natural resources, interpretation, collections management, archeology, cultural landscape architecture, and trail and parking design. A key aspect of this process was to set priorities to guide actions related to the protec-

tion of the different resources and providing public access. Through these workshops, participants were able to clearly define goals and desires for the future of the site, as well as interpretive themes.

The next step was to develop an action plan in cooperation with the Association and other interested parties. This plan provided a vision for the physical development of the site, interpretation, and long term resource management. The resulting plan provided guidance on trail layout and design that provided access into the park without damaging critical resources. Recommendations for such utilitarian, but important, issues as parking and the placement of interpretive signs also were included in the plan. General recommendations concerning land use and recreational activities also were included to help the property's managers address future requests for special uses or development.

The partnership that developed has succeeded in helping to protect an important historic site while leaving the long-term care and management of the property in the hands of local guardians who know it best. The actions by the Association and those who worked with them have made it possible for future visitors to fully appreciate the historical importance of this rest stop on the Oregon and California Trail. During the summer of 1998 the implementation of this plan began with the improvement of parking facilities, trails, and the development of interpretive signs and brochures.

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Lary M. Dilsaver

Some Notes on Thematic and Multi-Park Administrative Histories

Fall 1997 saw the publication of an important new study by Richard West Sellars, *Preserving Nature in the National Parks: A History*.[1] This long-anticipated overview of natural resource management in the parks has been greeted with enthusiasm and praise. It has appeared on the National Park Service's website since publication and is confidently predicted to be a landmark in scholarship on the agency.

The Sellars book establishes another, less celebrated, landmark as well. Park Service Chief Historian Dwight Pitcaithley, at a meeting of agency historians in Austin, Texas,[2] extolled it as a fine example of an administrative history. For some of those assembled that description may have sounded incongruous. Administrative histories typically focus on a single park. They follow a traditional chronological outline of pre-park land use, the campaign to establish the unit, land acquisition, planning and construction, and resource management, often in chapters organized by superintendent or by some internal set of phases.

An administrative history, however, is a history of the way that a government agency carries out its duties and the successes and failures of its management. For the National Park Service, Sellars' book is one of all too few that looks beyond an individual park at larger topics, regions or questions of administration. A bibliography of park administrative histories maintained by bureau historian Barry Mackintosh shows nearly 90 completed since 1982, and at least 31 others underway. By contrast, only 25 book-length reports exist that analyze topical issues, compare park units, or evaluate regions or other groupings of units.[3]

Scholarly research in history, as in any discipline, advances on a balance of multiple detailed studies countered with overviews that synthesize those studies and provide a framework for new ones. A library of individual park administrative histories, while of great use to park managers, is but a portion of the detailed studies that should contribute to scholarship and managerial perspective on the park system. Furthermore, it is a portion of one side of a balanced research agenda. In this short essay, I will suggest opportunities for future research that will expand and refine the administrative historical picture of the national park system by adding non-park-specific detailed research and studies that integrate multiple units. In each of three categories, I will cite some existing work and provide examples of the types of research needed for an enhanced understanding of the park system and a better perspective for subsequent histories of individual parks.

Topical Studies

One counterpart to the individual park history is a topical investigation. Studies of specific topics across the park system, or large segments of it, have flourished in the journal literature for decades. The majority of the non-park-specific studies fall in this category. Among the latter are a number that consider sweeping topics, such as wildlife or natural resource management, system-wide. Sellars' book is the most recent example but others by Olson[4] and Wright[5] preceded it. Mackintosh's report on interpretation,[6] Kaufman's on women in the Park Service,[7] and recent works by Carr on landscape architecture[8] and McClelland on historic landscape design[9] correlate data from around the system to achieve the grand overview of a major topic. Other works have narrower foci but no less coverage of the park system. Paige on the Civilian Conservation Corps,[10] McFadden on the development of the telephone and radio systems in the parks,[11] and Lewis' treatment of NPS museum curatorship[12] provide critical building blocks for all local administrative histories.

Not every topical history surveys the entire park system. In *Trains of Discovery*, Runte[13] considers the role of railroad corporations in the establishment of the great western parks. Keller and Turek's *American Indians and National Parks*[14] and Catton's discussion of Native Americans and the Alaskan parks are major additions to the scant literature on that subject.[15] A recent dissertation by Barringer[16] looks at concession management in Yellowstone but includes a perspective on system-wide policy as well. Finally, *Administrative History: Expansion of the National Park Service in the 1930s* by Unrau and Williss[17]

provides an important temporal look at Park Service expansionism.

These excellent books leave many topics available for future fruitful research. Sellars is just beginning a major cultural resource counterpart to his natural resource volume, but many subjects need specific overviews. Management of historic homes, presidential sites, military forts, memorials, and sites commemorating negative aspects of American history are a few of the specific subjects that come to mind. Living history and interpretive programs, signage and brochures also merit attention. On the natural resource side, fire in the national parks still needs work in spite of the contributions of Stephen Pyne.[18] Coastal erosion and construction, pest management, hazard mitigation, and coping with feral animals are processes that also need system-wide study. Administrative issues such as responses to overcrowding, development of trails and camping, dams and reservoirs in the parks, and the evolution of infrastructure like water, power and sewage lines demand attention as well. All these topics, and many others each reader of this essay will devise, will help provide a rich frame of reference for the park system in general and any one unit in particular.

General Administration

A variety of subjects suitable for study may be designated "general administration." Among them are biographies, park system subdivisions or offices, and programs carried out by the agency. For example, there are several good but dated biographies of major figures like Stephen Mather[19] and Horace Albright.[20] Reinterpretation in light of recent research on the park system is certainly one direction for study. New research to supplement the autobiographies by former directors George Hartzog[21] and Conrad Wirth[22] provides another. In addition to these notable figures, many less senior officials should be considered. Frank Pinkley, Roger Toll, and George Wright come to mind immediately. Others might be handled in groupings of shorter biographies such as Strong provided for conservationists in *Dreamers and Defenders*.[23] The first tier of Mather-appointed superintendents including Washington B. Lewis of Yosemite, J. Ross Eakin of Glacier, George B. Dorr of Acadia, and John White of Sequoia is one example. The first Division of Biology personnel including Joseph Dixon, Lowell Sumner, and Ben Thompson is another.

Subdivisions of the agency also can provide instructive topics. An administrative history of the Midwest Region (in its various permutations) would form a natural data bridge between its individual parks and the entire system. Perhaps because of structural differences in the two agencies, several such regional studies exist for the U.S. Forest Service,[24] but none for the Park Service. On the other hand, historians have studied several National Park Service offices in depth. Corkern, Glass, and Mackintosh have authored monographs respectively on the Historic American Buildings Survey, the National Historic Preservation Program, and the Historic Sites Survey and National Historic Landmarks programs.[25] Opportunities remain in many areas including the offices for Planning, International Affairs, Design and Construction, the Harpers Ferry Center, and the Denver Service Center.

Official and unofficial programs and events affecting the parks have received some attention. A recent dissertation by Noll expands on the history of Mission 66.[26] Mattes' study of the American Revolution Bicentennial[27] is a timely addition to the literature exploring politics, policy, and interpretation. Williss' excellent monograph on the Alaska National Interest Lands Conservation Act[28] further bolsters the story of National Park Service administration.

Many other subjects offer opportunities for either a first comprehensive analysis or for a deeper one than is present in the journal literature. These include management of the park system during both world wars, the recreation imperative during Lyndon Johnson's Great Society, and agency experience with the Wilderness Act and the National Environmental Policy Act. Programs like the one for national natural landmarks, though young, deserve careful research. Once again, each of these research foci is part of a historical framework for individual park histories. No park ever operated outside an organizational, regional, and programmatic framework. Knowing more about it means knowing more about each park.

Comparative Histories

Both topical histories and studies of general administrative regions, offices, and programs use inductively structured research procedures. An alternative with promise is a carefully designed comparison of like units to deduce reasons for differences in administration. There are few examples of this type of research. *Preserving Different Pasts* by Rothman[29] surveys the national monuments. While it is not a structured comparison between units, it does provide useful data on a whole category of the park system. A recent dissertation on Civil War battlefields by Abroe[30] and Norris' administrative history of Katmai and Aniakchak[31] also review related parks.

However, a designed comparative study of subject-related parks or ones from the same originating process may be especially enlightening. In a project I began three years ago, I am attempting to

do this. While researching another subject at the archives in Harpers Ferry, I discovered two boxes of reports from seashore and lakeshore surveys conducted by the Park Service in the 1930s and the 1950s.[32] They indicated that 36 areas around the Atlantic, Gulf, Pacific, and Great Lakes coastlines had been proposed for "national seashore (or lakeshore) recreation area" status in the park system. From this group Congress established 10 units and added four more from the list proposed for state park status. Two more became part of Channel Islands National Park. Questions immediately came to mind: What criteria identified a coastline as "nationally significant?" What happened to the 24 that are not today part of the national park system? Why did the campaigns that resulted in the establishment of the existing 14 seashores and lakeshores succeed? Familiarity with several of the units brought other questions. Why did some, but not all, of the units' management philosophies and policies diverge so far from the "recreation area" concept under which they were identified? How and why did their prescriptions for development of roads and structures, off-road vehicle use and natural resource management come to vary so widely?

I came to hypothesize that the pressure from local populations was the primary factor in their differentiation. The book to come from this study thus will compare 14 units identified in a series of studies for one purpose, outdoor recreation. Analysis of the many tracks their establishment and administration have followed will prove or disprove that hypothesis as well as identify other variables for investigation. All these influences can be researched in other combinations of units. Some groupings that come to mind are desert parks, urban recreation areas, wild and scenic rivers, Alaskan natural parks, and parks with trans-mountain roads.

Conclusion

The purpose of the administrative history of the national park system is to explain the condition and management of that system. There are a variety of approaches to and components of the program for such history. First, research must balance between a diverse group of detailed studies and occasional overviews. These are symbiotic in a proper research agenda. Second, the existing program of individual park histories should not only continue but should expand. These are the tools for current managers and every unit needs one. Third, scholars also should conduct complementary focused research on topical, general administrative and comparative history of the parks. The latter in particular is an organizing approach that can identify the critical factors in the evolution and administration of the park system in a way no single park study can.

Two final thoughts must be considered in the program of administrative history. National Park Service Associate Director Kate Stevenson[33] informed the Austin meeting of agency historians that additional money for administrative history is simply unavailable. Competition for funds from other worthwhile projects is too great. This is a situation that, if it persists, will damage the National Park Service in ways evidently unrealized. The rationales for decisions and actions that impact park management daily are slipping away. Related to that is a second concern. Many National Park Service personnel are guilty of ignoring the documentation of their actions. The agency has suffered from inconsistent records keeping for decades despite existing policies. Now the advent of email and wordprocessing threatens even those efforts. Drafts of documents are deleted with no paper copy to show the historian how a plan evolved. Important decisions communicated through email may also vanish. Further, many records and documents saved on disk face a short life if not preserved on paper as well. National Park Service Archivist Diane Vogt O'Connor[34] explained to the Austin meeting that disk memory lasts between five to twenty years. Acid free paper may last 150 years. It is time to ensure that each employee of the agency follows the existing regulations on preserving records and, furthermore, that these records be on paper and include all the steps in the history that each is making.

Notes

1 Richard W. Sellars, *Preserving Nature in the National Parks: A History* (New Haven, CT: Yale University Press, 1997).

2 National Park Service historians meeting held at the annual conference of the National Council for Public History, Austin, TX, April 14 and 15, 1998.

3 Barry Mackintosh, "Historical Research in the National Park Service," *CRM*, 21:2 supplement (1998); Barry Mackintosh, "Park Administrative Histories," unpublished bibliography, Park History Office, National Park Service (1998).

4 Gordon C. Olson, "A History of Natural Resources Management within the National Park Service," MA Thesis, Slippery Rock University (1986).

5 R. Gerald Wright, *Wildlife Research and Management in the National Parks (Urbana, IL: University of Illinois Press, 1992).*

6 Barry Mackintosh, *Interpretation in the National Park Service: A Historical Perspective* (National Park Service Report, 1986).

7 Polly W. Kaufman, *National Parks and the Woman's Voice: A History* (Albuquerque, NM: University of New Mexico Press, 1996).

8 Ethan Carr, *Wilderness by Design: Landscape Architecture and the National Park Service* (Lincoln, NE: University of Nebraska Press, 1998).

9 Linda F. McClelland, *Building the National Parks: Historic Landscape Design and Construction* (Baltimore, MD: Johns Hopkins Press, 1998).

10 John C. Paige, *The Civilian Conservation Corps and the National Park Service, 1933-1942, An Administrative History* (National Park Service Report, 1985).

11 Ralph R. McFadden, *From Ground Wire to Microwave: A Chronicle of Telephone and Radio System Development in Our National Park System* (National Park Service Report, 1991).

12 Ralph H. Lewis, *Museum Curatorship in the National Park Service, 1904-1982* (National Park Service Report, 1993).

13 Alfred Runte, *Trains of Discovery: Western Railroads and the National Parks* (Niwot, CO: Roberts Rinehart, 1990).

14 Robert H. Keller and Michael F. Turek, American Indians and National Parks (Tucson, AZ: University of Arizona Press, 1998).

15 Theodore Catton, *Inhabited Wilderness: Indians, Eskimos, and National Parks in Alaska* (Albuquerque, NM: University of New Mexico Press, 1997).

16 Mark D. Barringer, "Private Empire, Public Land: The Rise and Fall of the Yellowstone Park Company," Ph.D. dissertation, Texas Christian University (1997).

17 Harlan D. Unrau and G. Frank Williss, *Administrative History: Expansion of the National Park Service in the 1930s* (National Park Service Report, 1983).

18 Stephen Pyne, *Fire in America: A Cultural History of Wildland and Rural Fire* (Seattle, WA: University of Washington Press, 1982, 1997 reprint).

19 Robert Shankland, *Steve Mather of the National Parks* 3d. ed. (New York, NY: Alfred A. Knopf, 1976).

20 Donald C. Swain, *Wilderness Defender: Horace M. Albright and Conservation* (Chicago, IL: University of Chicago Press, 1970).

21 George B. Hartzog, Jr., *Battling for the National Parks* (Mt. Kisco, NY: Moyer Bell, 1988)

22 Conrad L. Wirth, *Parks, Politics, and the People* (Norman, OK: University of Oklahoma Press, 1980).

23 Douglas H. Strong, *Dreamers and Defenders* (Lincoln, NE: University of Nebraska Press, 1988).

24 Thomas G. Alexander, *The Rise of Multiple-Use Management in the Intermountain West: A History of Region 4 of the Forest Service* (U. S. Forest Service Report, 1987); Robert D. Baker, et al., *Timeless Heritage: A History of the Forest Service in the Southwest* (U. S. Forest Service Report, 1988).

25 Wilton C. Corkern, Jr., "Architects, Preservationists, and the New Deal: The Historic American Buildings Survey, 1933-1942," Ph.D. dissertation, George Washington University (1984).

26 William N. Noll, "Mission 66: The National Park Service Program for the Revitalization of America's National Parks, 1955-1966," MA thesis, Kansas State University (1997)

27 Merrill J. Mattes, *Landmarks of Liberty: A Report on the American Revolution Bicentennial Development Program of the National Park Service* (National Park Service Report, 1989).

28 G. Frank Williss, *Administrative History: The National Park Service and the Alaska Nahonal Interest Lands Conservation Act of 1990* (National Park Service Report, 1985).

29 Hal K. Rothman, *Preserving Different Pasts: The American National Monuments* (Urbana, IL: University of Illinois Press, 1989).

30 Mary M. Abroe, "All the Profound Scenes: Federal Preservation of Civil War Battlefields,1861-1990," Ph.D. dissertation, Loyola University-Chicago (1996).

31 Frank B. Norris, *Isolated Paradise: An Administrative History of the Katmai and Aniakchak National Park Units* (National Park Service Report, 1996).

32 Harpers Ferry Center Library and Archives, 175, Boxes 1 and 2.

33 Kate Stevenson, National Park Service Historians Meeting, op. cit., note 2.

34 Diane Vogt O'Connor, National Park Service. Historians Meeting, op. cit., note 2.

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Steven Ohrn and Vincent Ciulla

From Concept to Reality
Developing an Interpretive Center

In 1989, an act of Congress called for creating the Western Historic Trails Center (WHTC) in Council Bluffs, Iowa, the launching point for much of the 19th-century westward expansion. The idea was to recognize the national significance of four historic trails that passed through or near Council Bluffs: the Lewis & Clark, Oregon, Mormon, and California trails. As key project developers, our challenge was to bring to life an era far removed from today's technological comfort and ease of travel. Could today's American superhighway drivers connect with people who depended largely on animals and their own feet to move them during the largest voluntary migration in human history?

In retrospect, we realized that everybody who develops or updates an interpretive center must find ways to inspire today's visitors with yesterday's events. To persevere from concept to finished product requires vision, planning, hard work, and commitment. In October 1997, eight years after Congress acted, the WHTC opened to the public. This article offers some of the lessons we learned along the way to successfully develop an interpretive center.

Seek partnerships. In today's funding climate, policymakers want to leverage their investments. They want to see local interest and involvement. Bringing together a broad coalition helps to create support that can turn into funding. The WHTC was conceived by local organizations and brought to the congressional delegation by the Council Bluffs Area Chamber of Commerce. The WHTC was funded by a partnership including federal, state and local government and more than 20 major, local, private donors. Indeed, the local share of development costs was required by the legislation establishing the center. The WHTC is owned and operated by the State Historical Society of Iowa.

Assemble your team early. Too often, important project decisions are made before the project team is assembled, limiting the possibility for unique and creative problem solving by those who will interpret, design, and integrate a facility. For instance, architects are often asked to create building plans without input from the exhibit designer. We strongly recommend working in parallel on planning, architecture, and exhibit design.

Once the State Historical Society of Iowa had been selected as owner-operator by the National Park Service (NPS), it became involved in site selection, building and exhibit design, interpretation and construction. The effort involved NPS planners, local architects, landscape architects, the exhibit designer, and several historians.

The early assembly of this team paid big dividends. Close collaboration led to creative solutions and appropriate setting for the various media that ultimately became part of the project. Each aspect of the exhibit design has been carefully integrated within the building, which itself sits in harmony with the landscape.

Use the best and latest Scholarship. Find the experts and get several points of view. NPS helped us locate experts on each of the trails, as well as cutting-edge historians such as Glenda Riley of Ball State University, an expert on women in the west, and James Riding In, a Pawnee Indian who teaches law at Arizona State University. As a result, the story told at the WHTC counters many of the stereotypes of how the west was settled. The exhibits correct misconceptions, fostered in part by movies, that travel on the western trail was characterized by white males, frightened women and attacking Indians. A homesteading sculptural element, for instance, depicts two sisters rather than a family with a male head of household.

The historians influenced our thinking in other ways as well. James Riding In helped us to see time from the Indian point of view, as a spiral of repeating events, rather than in the linear European manner with a beginning and end. We also came to see that the migration extended well beyond the United States, beginning from Scandinavia in one direction and from China in the other. Indeed, the migration went in both directions; lots of people went west and returned, others came from the west coast to the east.

Let the creative juices flow. Be ready for your original concept to change. We started with a traditional museum-type concept based on collecting and presenting lots of objects and artifacts. We found, however, that artifacts were going to be difficult to come by from the 35 major historic sites in 15 states referenced at the WHTC. Moreover, we had to fit 200 years of history into 5,000 square feet of space. We went back to the drawing board and a unique facility emerged that blended a strong visual experience with innovative historical interpretation.

The feel of the western migration is captured in a combination of specially commissioned sculptures, photographs, and an award winning video. Visitors can see precisely where each trail led by

interacting with an electronic map that lights up each of the four trails (and specific sites along them) on an overlay of the United States. The map is augmented with video monitors and photographs that compare then and now for travelers headed out on the trail. Rows of colorful postcards depict historic and scenic views along the trails; these are combined with audio transcriptions read from the diaries of the overland travelers.

In using different media, it is essential that each complements the other rather than simply repeating the same material. Video maker John Allen gave a camera to a family driving west from Maryland to Oregon, asking them to capture their own experience of westward travel. In the video shown at the WHTC, scenes from the modern family caught in a traffic jam are juxtaposed with a voiceover from a 19th-century travel diary that describes having to wait at a river crossing.

Cultivate versatility. Development of an interpretive center is a balancing act between budget and vision. What is produced must be easy to manage, fit the location, and appeal to large numbers of people with varying amounts of time to explore. The Lied Historical Building, the core of the WHTC, is located against a levee. Earth-sheltered on two sides and flat-roofed, the split limestone building echoes the horizontal landscape of the Midwest. Large timber posts flank the entry portico. Above the posts, trellises shade the entry glass from summer heat while allowing ample sunlight during winter months. Inside, the front desk radiates out, creating a space that is engaging, attractive and which can be maintained by a small staff.

A "layered" approach was developed that enables visitors to experience the WHTC as deeply or quickly as their interest or time allows. The experience begins well before the building is entered. As people walk toward the building, they are greeted by a 90-foot-long sculpture modeled after an 1851 drawing. It depicts the challenging elevations overland travelers would have to traverse between the Mississippi River and the Pacific Ocean. Next to the granite entry path, more than a thousand names are engraved on polished stone slabs. They represent a small sampling of actual persons known to have been involved in the western trails experience. Names of individual travelers are interspersed with the names of Indian nations affected by the influx of thousands of emigrants. Within the center, more information is available on each person or group named, giving people the opportunity to connect more deeply with the experience of specific individuals. Currently, a walking tour is being developed for visually impaired visitors.

Slow people down. We recommend finding mechanisms to slow people down as they enter the interpretive space. We had the luxury of full landscaping and road design on a 480-acre site. The NPS planners developed an entrance with a single lane road to ensure that visitors leaving the nearby superhighway, Route I-80, would experience a transition from the fast lane to a slower pace. After all, a productive day of travel on one of the four trails for a 19th-century traveler yielded 15 to 20 miles. The entrance road allows speeds of 20 mph, slow by today's standards.

The landscaping has been designed to reinforce the transition from the cultivated lands of the East to the untamed West. Plantings of corn, beans and hay fields will be present next season to symbolize the crops grown on the farms many emigrants left behind. Prairie grasses and perennial wildflowers will symbolize the wild, undefined territories people passed through.

Emphasize the human element. Museum displays and exhibits often are like one-way mirrors looking into the past; they fail to show the common ground people from the past share with the living. As a result, people who visit interpretive centers may not readily see the connection between their lives and what they are viewing.

We used the names and stories of individuals to bring the human element to life. We further depicted their lives by choosing 10 key situations experienced by those traveling on the trails. These moments, captured in historically accurate detail in the sculptures, include ferry crossings, winter quarters, trail camps, Indian reservations, a 1920s auto camp, immigrant laborers in a rail camp, and the crossing of the Missouri River in Kanesville (now Council Bluffs).

The biggest connection with the 19th-century westward traveler comes with the realization that the west hasn't been closed, that the migration still goes on. The asphalt ribbon of superhighway that is I-80 is simply the latest trail incarnation. The WHTC acknowledges the modern trail. One of the center's primary purposes is to help today's traveler make choices about what to see, to help them plan visits to historic sites along the trails as they travel west.

Hopefully, these lessons will be of some use to our colleagues as they develop interpretive exhibits and centers.

Steven Ohrn is Sites Coordinator for the State Historical Society of Iowa. Vincent Ciulla is president of Vincent Ciulla Design in Brooklyn, New York.

Departments

—*continued from page 6*

Hydroelectric Project (FERC Project No. 1389), Mono and Inyo Counties, California," (Rosemead, CA: Southern California Edison Company, April 1990).

10 Thomas T. Taylor to Cherilyn Widell, SHPO, January 6, 1997. On file with FERC Project Nos. 1389 and 1394, California State Office of Historic Preservation, Sacramento.

James C. Williams is author of Energy and the Making of Modern California *(University of Akron Press, 1997). He teaches history at De Anza College in Cupertino, California, and also is a historical consultant.*

The author wishes to thank William F. Willingham, U.S. Army Corps of Engineers, for his comments on an earlier version of this essay.

A New Look for the Commandant's House, Charlestown Navy Yard, Boston NHP

Gay E. Vietzke

The Commandant's House at the Charlestown Navy Yard, Boston National Historical Park, was recently turned into an interior design show place and then returned to the park wearing its made over finishes. In this day of limited federal funding and directives toward entrepreneurial practices, Boston National Historical Park found a way to have the neglected and shabby interiors of the Commandant's House redone without the benefit of NPS dollars. And yet, continued criticism from preservationists inside and outside the NPS about the manner in which the work was accomplished merits an examination of why the park did what it did and what results were achieved.

The Commandant's House was built in 1805, and is the oldest surviving structure in the Charlestown Navy Yard, a National Historic Landmark. The House was built to house the Navy's highest-ranking officer in the Yard, and later in the First Naval District. The house's first resident was USS *Constitution*'s first captain and the commanding officer of the Navy Yard in the early 1800s, Samuel Nicholson. Primarily designed in the Federal style, the house boasts elliptical double parlors and beautiful woodwork carved with laurel wreath motifs. It has hosted many important guests, including James Monroe, Andrew Jackson, and the Marquis de Lafayette. Since 1974 when the Navy Yard closed, the house has been part of Boston National Historical Park. For several years, the park used the house as a historic house museum, presenting the interiors as c.1974 and interpreting the various Commandants' residencies in the Navy Yard. However, the house wasn't well visited, incomplete documentation and furnishings made the interiors feel sterile, and the house lacked integrity. The park decided to re-think the house's use. During a General Management Plan (GMP) revision in the mid-1980s, the park decided that the house should not be a museum, but rather, it should be used for functions and meetings, a use that continued the tradition of entertaining in the home started by its first occupants. Since then, the house has hosted about 12 events annually, most of which are co-hosted by the NPS and a community group or park partner.

In May of 1997, the Junior League of Boston approached the park about using the house as its 1998 Decorators' Show House. The Junior League selects a property annually to be transformed into a show place for interior design. In a period of six months, they redo the house, bring 30,000 people through the building, and then move out and repair/restore the building to the "owner's" specifications. Although the park had

The Commandant's House at the Charlestown Navy Yard, Boston, Massachusetts.

invested over one million dollars in the house's exterior and roof, the interiors had been long neglected. Plaster walls were severely cracked, floors were covered with soiled carpets to hide the need for sanding and refinishing, and layers and layers of beige paint masked the beautiful woodwork. With no funding in sight for a needed facelift, the Junior League's offer seemed intriguing.

The Show House process followed a relatively simple and proven formula. The Junior League of Boston invited several hundred decorators to tour the house in December. Within days, each dec-

This former linen closet had suffered significant water damage. This is the condition of the room when the decorators first saw it in December 1997. Photo courtesy Sam Gray Photographer and Gerald Pomeroy Design.

orator submitted proposals for how he/she would decorate a specific room. A committee of League members reviewed the proposals and selected one for each space in the house. Each selected decorator was informed and allowed to measure his/her room in January. Construction began in February. The decorators were responsible for doing anything necessary to their space to create their desired effect including re-plastering walls, refinishing floors, painting, wallpapering, electrical upgrade, etc. The house opened around the first of April to the press and special guests. Preview tours and general admission followed. The house closed before Memorial Day and was cleaned out and returned to the park's control by early June. During this final phase, the owner (the NPS in this case) retains the right to have the house returned to the way it was before Show House or to keep any wall or ceiling finishes introduced during the re-decoration.

Considering the Commandant's House's deteriorated circumstance, the park knew that the house would be in superior condition after Show House. Further, the park hoped to bring a new audience of users to the house and the park—and Show House publicity would certainly do this. The cosmetic facelift was important for making the house attractive for meetings and receptions. Its dilapidated appearance had become an embarrassment and certainly limited the types of users for the property. Moreover, the Junior League promised to upgrade the electrical system in the house. With the electrical upgrade, the park would have lighting for exhibits, the potential for a sound system, and enough power in the house to serve any caterer's needs. Indeed, the electrical upgrade would provide greater flexibility of use. The park developed a detailed list of restrictions for the decorators. This list outlined exactly what changes were appropriate and inappropriate to the house. For instance, the park specified that no original woodwork could be removed or altered—painting and gilding woodwork was allowable. Any specific requests to do things outside of the restriction list were reviewed by the park's 106 Committee. It was determined that certain rooms retained so little integrity that intrusive alterations were acceptable–recessed lighting was allowed in one room on the first floor that had been significantly altered over the years. Recessed lighting was not allowed anywhere else in the house.

The park estimates that the house received about $200,000 in overall improvements and preservation work during the redecoration. It was decided that almost all the new wall treatments, including a wall mural of 19th-century Charlestown in the second floor hall would be retained. Although none of the new finishes are historic, the fresh coat of paint leaves the building fresh and far more presentable for public functions. Nearly 30,000 visitors came to the Navy Yard because of the Show House and most had never visited the park previously. The house received tremendous publicity, all positive, including upcoming layouts in *Traditional Home* and *House Beautiful*. The park's Superintendent, John Burchill, has called the Show House "a win-win" for all involved.

The park has proven that the Decorators' Show House was a way to get the interior spaces redone at no cost to the government. Moreover, the house, while certainly historic, had been identified in the park's GMP for adaptive reuse as a function space. Indeed, while serving as home for the Commandant of the First Naval District, it was a place for entertaining dignitaries and celebrating the Navy's achievements. Throughout the Show House process, photographs and videotape were used to document what was being done to the property. Few changes constituted more than cosmetic alterations and those situations were carefully reviewed. At the conclusion of the process, the park has a facility far better suited to the purpose outlined for it in the GMP, which promotes "increased public use of the building for functions such as receptions, temporary exhibits, small meetings and special events."* The community has expressed renewed interest and pride in the building, and the local preservation groups even raised $15,000 to buy new light fixtures and draperies for the now grand-again interiors.

It is easy to suggest that the Show House improvements were not made to preservationists' standards and that the NPS should never have turned over such an important building to a volunteer group—a non-preservation organization—for this type of work. And yet, the house would have never received this sort of attention otherwise. It would have continued to deteriorate and the work would

Designer Gerald Pomeroy transformed the closet into the "Commandant's Retreat." This room exemplifies the type of transformations many rooms underwent. Photo courtesy of Sam Gray Photographer and Gerald Pomeroy Design.

never have been completed so comprehensively. The process certainly wasn't perfect, and it was difficult for the park to manage because the NPS did not have control of the property during the work. However, the end result is what the park hoped for—revivified interiors appropriate for the type of functions held in the building.

Note

* Charlestown Navy Yard: Boston National Historical Park General Management Plan, Volume II Revision, Part B, (Boston: National Park Service, 1988), 4.

Gay E. Vietzke is Supervisory Museum Curator, Boston National Historical Park, Charlestown Navy Yard, Boston.

PRESERVATION RESOURCES

Reviews

Cast-Iron Architecture in America: The Significance of James Bogardus by Margot Gayle and Carol Gayle, New York: W. W. Norton & Company, 1998.

Reviewed by Antoinette J. Lee, Special Projects Director, Heritage Preservation Services, National Park Service.

In the early 1970s, the preservation of Victorian-era buildings and structures was considered somewhat avant-garde and daring. Back then, superhuman efforts were required to persuade city administrators and the public that mid-19th-century cast-iron buildings were significant and worthy of preservation. Alas, too many of these important antecedents to the tall buildings of the late part of that century have been demolished. Many of those that were preserved, however, owe their survival to Margot Gayle and her colleagues in the Friends of Cast-Iron Architecture and in the Victorian Society in America.

This book, *Cast-Iron Architecture in America: The Significance of James Bogardus*, is the culmination of Margot Gayle's long and distinguished career as a preservation activist and leaves an important record of her tireless efforts on behalf of cast iron buildings and in securing the legacy of the originator of the building type, James Bogardus. She co-authored this book with her historian daughter, Carol Gayle.

Prefaced by a short essay prepared by architect and preservation compatriot Philip Johnson, the book focuses on Bogardus's career, which spanned the decades just prior to the Civil War. Bogardus and his fellow inventors were the mid-19th-century counterparts to the computer and telecommunications entrepreneurs of our own age. They placed themselves squarely in the circle of thinkers and promoters who shaped the future. They invented new machinery and implements that made the production of agricultural and industrial goods more efficient. In short, their inventiveness generated much of the increase in the wealth of the nation at mid-19th century.

Bogardus was born in 1800 in Catskill, New York. His apprenticeship to a local watchmaker set him on his way to experimenting with mechanical implements. Finding greater opportunities in New York City, he moved there in the late 1820s and became connected with organizations of learned and progressive businessmen. In short order, he invented and obtained patents for clocks, spinning machinery, grinding mills, and gas meters, among other items. A four-year sojourn in England and the Continent introduced him to the widespread use of cast iron in buildings and engineering structures. In Italy, Bogardus also came to appreciate classical and Renaissance architecture. Armed with this new knowledge, he returned to New York to marry the new technology with historic building forms.

By the late 1840s, Bogardus began producing cast-iron buildings that imitated stone in New York City. These early buildings used readily replicable and mass-produced cast-iron elements and could be erected on the building site within a matter of days. When compared to the usual period of months required to construct stone and brick buildings, Bogardus's product seemed miraculous. Over the next decade and a half, Bogardus produced cast-iron buildings in New York City, Baltimore, Philadelphia, Washington, DC, and Charleston. He and his competitors in the cast-iron building trades also produced commercial buildings in such quantity and in such dense concentrations that many cities, such as New York, Philadelphia, and St. Louis, possessed veritable "cast-iron districts" by the late 1870s. By that time, steel and wrought iron frames had come into use and superseded cast-iron in moving the urban skyline ever higher.

In order to gain public acceptance of cast iron used to replicate the qualities of stone, Bogardus was an effective advocate and proselytizer. His treatises were intended to inspire confidence in the building material and in his ability to satisfy client demands. His buildings carried foundry plates testifying to his role as "originator and constructor of iron buildings." These efforts were necessary in order to overcome fears about the combustibility and stability of cast iron structures and address concerns about the aesthetic merits of iron imitating stone.

By the end of his career, Bogardus was regarded as a major American inventor. In a large oil painting called "Men of Progress," painter Christian Schussele included him in a pantheon of other inventors, including Samuel Colt, Cyrus McCormick, and Charles Goodyear. Executed between 1857 and 1862, the paint-

ing now is housed in the National Portrait Gallery in Washington, DC. This book provides the reader with a strong basis for appreciating Bogardus's career and the industrial context for his achievements.

Preservationists will find the Gayles' book invaluable because it presents a comprehensive discussion of the development and preservation of cast iron buildings. Cast-iron buildings occupy a key phase in the evolution of commercial buildings as they shed their earlier residential-like form and became largely metal framed buildings clad in glass sheathing. While many architectural historians and building technology specialists are familiar with individual examples of cast iron buildings or with now-lost cast iron buildings that once occupied a city's commercial district, the Gayles provide a cohesive and chronological narrative of this important topic through the career of a single pivotal individual.

Outside of New York City, few cast-iron buildings survive today. Those that do often are regarded as oddities located among taller and more aggressive successors on the urban scene. Thanks to Margot Gayle's career, whole cast iron districts in New York City have been designated, have survived, and continue their service as attractive and viable commercial buildings. Individual buildings throughout the nation also have benefited from her national network of colleagues. This book is a fitting tribute to her career and that of James Bogardus.

Confederates in the Attic: Dispatches from the Unfinished Civil War by Tony Horwitz, New York: Pantheon Books, 1998.

Reviewed by Marie Tyler-McGraw, Historian, National Conference of State Historic Preservation Officers, NPS History Program.

Tony Horwitz, a war correspondent in Bosnia, Afghanistan, and elsewhere for the *Wall Street Journal*, came back to the United States and bought a house in rural northern Virginia. One morning he awoke to the sound of gunfire and discovered a Civil War movie being filmed near his home. He talked with some of the extras who were Civil War re-enactors and became intrigued by the topic of the meaning and memory of the Civil War.

Horwitz has now written a book that is both funny and complex, critical and compassionate about the ever-evolving memory of the Civil War as it is currently practiced in the United States—and even in Europe. Throughout the narrative, as he describes his travels with Civil War re-enactors and his interviews with the Sons, Daughters, and Children of the Confederacy, it is clear that the Civil War is a protean concept in American history. Much more than a series of bloody battles fought on American soil to determine the nature and future of the American constitutional union, the Civil War is the great political and social divide in American history while its origins and meaning are still contested. The lack of public consensus about the causes and effects of the Civil War is reasonable given the long argument among historians over the relative roles of slavery and states' rights ideology in provoking the conflict. While scholars may have come to agree on slavery as the primary factor, that view is not pervasive throughout the American public.

Contemporary tensions about race, civil rights, citizenship, even the decline of skilled labor in the new global economy can be detected in the actions of re-enactors on the battlefields of the Civil War. Today, African-American re-enactors press their own claims to glory and a well-earned citizenship through re-enactments of their Union Army experience. Some scholars of American monuments, memorials, and historic rituals believe that, for white re-enactors, the Civil War is attractive because it represents an era in which life and choices were less complicated. If Horwitz is to be believed, many more Confederate than Union Army re-enactors are "hard core." Hard core means dedication to authenticity in as many details as possible. This is both a physical discipline and a craftsmanlike attention to costume and armament. It is hard not to imagine that some of the inventive tinkering that characterized American workers before the post-industrial economy has been subverted to making battle re-enactment "real."

Led primarily by Robert Lee Hodge, a hard core re-enactor whose period photo is on the cover, Horwitz visited almost all the Civil War sites in the South, camped with hard core re-enactors and "farbs" (the easy going re-enactors scorned by the hard core), found the last Confederate widow (NOT the one in the Allen Gurganus novel), described a very serious Kentucky trial about a young man apparently shot for displaying the Confederate flag, talked to Sons and Children of the Confederacy.

Horwitz hokes it up a little bit. The picture of Hodge on the cover is fiercer than the picture of him in a New Yorker magazine article of February 16, 1998, where he looks more like the twenty-something ex-art student at Kent State that he is. Horwitz refers to the Virginia Historical Society by its much-more-colorful older names, "Confederate Memorial Institute, better known as the 'Battle Abbey of the South'" (p. 243). To some extent, reviewers have bought into this and made the whole vision quest of the re-enactors even more exotic than it is.

Thus far reviews of the book have not noted two central aspects of it. First is Horwitz's dependence on the Civil War parks and their staffs. Horwitz and his new pard, Robert Lee Hodge, sneak onto the battlefield at Antietam at night and sleep in a trench. But this is unusual. His common practice was to go from park to park and describe the landscape and visitors, including one visitor from Germany who appeared to be

almost Horwitz's double. Horwitz depended on the rangers to give him factual information about the sites. Not once in the book did he meet a ranger who was not forthright and helpful. Most of them had done independent research that greatly enriched the story told at the site.

As a counterpoint to his experiences in the national parks, when Horwitz looked for Civil War sites in or near Southern cities, he described their downtowns as woefully distressed. Vicksburg appeared to be the worst, with riverboat gambling on the Mississippi having contributed to the demolition of the historic, if shabby, downtown. Petersburg, too, was described as having a slow pace and a community discouraged about both the downtown landscape and the economy. Richmond seemed to be in about the best shape of the cities he visited. Horwitz also described a discussion about the placement of Arthur Ashe's statue on Monument Avenue in Richmond with pleased surprise, recounting thoughtful assessments from both black and white members of the community.

Basically, Horwitz likes and wants to understand the people he meets, but his study does show sad and destructive racial stratification and stereotyping in many places. But it is not always where you think it will turn up and thus our own stereotypes are overturned. One place it did emerge was in a tavern five miles from my house. One place it didn't emerge was in the person of Robert Lee Hodge, the Confederate re-enactor who identified with the poorest privates. Horwitz's Civil War map of American memory is a true maze — and a very good read.

New Multiple Property Submission List

An updated list of all National Register Multiple Property Submissions is accessible on the Web at: www.cr.nps.gov/nr/mpslist.html. Multiple Property Submissions (MPS) organize National Register documentation by historical themes, property types or geographic areas. As a cultural resource management tool, the MPS approach can furnish essential information for historic preservation planning because it evaluates properties on a comparative basis within a geographical area, and because it can be used to establish preservation priorities based on historical significance.

New Bulletin on Documenting Historic Aviation Properties

The National Register has recently published a new bulletin entitled, "Guidelines for Evaluating and Documenting Historic Aviation Properties." This bulletin provides information on the history of aviation and gives guidance on the National Register registration requirements for historic aircraft, aviation wrecks, aviation development and production facilities, air terminals on land and water, military air bases and stations, aides to navigation, administrative, educational and other facilities, and missile launch sites and complexes. To order, call the National Register reference desk at 202-343-8012 or email at <nr_reference@nps.gov>.

Heritage Preservation Book on Caring for Historic Houses

Coming this October from Heritage Preservation, the National Park Service, and Harry N. Abrams, Inc., *Caring for Your Historic House* is designed for anyone living in, or involved with, a historic house and emphasizes the importance of ongoing care and maintenance. Each chapter is written by one or more leading preservation practitioners and provides expert advice on every aspect of the subject.

For information, contact Clare Hansen at Heritage Preservation, 202-634-1422.

BULLETIN BOARD

New from Teaching with Historic Places

The National Register of Historic Places' Teaching with Historic Places program announces the publication of two new lesson plans, "Adeline Hornbek and the Homestead Act: A Colorado Success Story" and "The M'Clintock House: A Home to the Women's Rights Movement." The lessons use primary documents, readings, maps, and photographs to bring the engaging stories of these places into the classroom. To order, contact Jackdaw Publications at 800-789-0022. For more information on the program, contact the National Register of Historic Places, 1849 C Street, NW, Suite NC400, Washington, DC 20240.

Geology National Historic Landmark Theme Study Update

The *Geology National Historic Landmark Theme Study* has been under development by the National Park Service since 1990. This study represents the second phase of the National Park Service's thematic investigation of the history of American science. The initial phase, *Astronomy and Astrophysics: A National Historic Landmark Theme Study*, was completed in 1989.

The Geology Theme Study focuses on the identification and evaluation of sites in the areas of physical geology, historical geology, and economic geology and secondarily, on the recognition of important sites in the areas of planetary geology, exploration, scientific, and topographical surveys. Since 1990, a total of 15 properties have been designated as National Historic Landmarks in the Geology Theme Study.

For further information on the Geology Theme Study, contact

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NATIONAL PARK SERVICE, HERITAGE PRESERVATION SERVICES

1999 Cultural Resources Training Directory Course Submission Form

The next edition of the *Cultural Resource Training Directory* for January-December 1999 is being compiled. If you or someone you know offers general training courses or workshops for the public, or more specialized courses for the preservation community, please encourage them to fill out and **send in this form by November 20, 1998**. The Directory is distributed as part of the *CRM*, reaching over 12,000 individuals, and is widely advertised.

1. Course title/working title:_____

2. Dates of course (*provide exact dates if known*):_____

   or circle the month(s) being considered

   Jan Feb March April May June July Aug Sept Oct Nov Dec Yet to be Determined

3. Length of course (**6 weeks is the maximum for listing**):

   how many days_____ how many hours_____ or how many weeks _____

4. Tuition/fee for participant:$_____
   It is assumed that participant pays for travel to and from course as well as any lodging and meals, if your organization provides those, please say so.

5. ❑ Continuing Education Credit Offered ❑ College Credit Offered

6. Location where training will be offered:

   City_____State_____

7. Category in directory that you would like your course to be found. **If more than 2 are marked the course will go automatically under "Common Ground"**:

   ❑ **Common Ground: Courses of Interest to More Than One Specialty**

   ❑ **Anthropology and Related Specialties**
   ❑ Anthropology ❑ Archeology ❑ Ethnology & Ethnohistory

   ❑ **Applied Technology Specialties**
   ❑ Geographic Information System (GIS) ❑ Global Positioning Systems (GPS)
   ❑ Information Resources Management

   ❑ **Crafts, Trades, and Apprenticeships**
   ❑ Blacksmithing ❑ Crafts Training ❑ Stained Glass ❑ Timber Framing

   ❑ **Ethnic Studies & Language Retention**
   ❑ African-American Studies ❑ Alaska Native Studies ❑ American Indian Studies
   ❑ Asian-American Studies ❑ Hispanic-American Studies ❑ Native Hawaiian Studies

   ❑ **Folklife, Oral History, Traditional Arts, Cultural Traditions**

   ❑ **History, Public History**
   ❑ History of Science, Technology, Engineering

PLEASE PREPARE ONE FORM FOR EACH COURSE. [please **turn page** over]

❑ **Historic Building Related Specialties**

- ❑ Architectural Conservation
- ❑ Architectural Treatments
- ❑ Documentation of Historic Structures
- ❑ Hazardous Materials
- ❑ Historic Architecture
- ❑ Historic Building Materials
- ❑ Historic Preservation
- ❑ Historic Preservation Ed.
- ❑ Interior Design
- ❑ Rehabilitation/Standards
- ❑ Preservation Maintenance
- ❑ Specific Bldg./Structure Types

❑ **Interpretation**

❑ **Landscape Preservation**

❑ **Museum Related Specialties**

- ❑ Archives
- ❑ Collections Management and Care
- ❑ Conservation

❑ **Planning, Preservation Planning and Related Specialties**

❑ **Preservation Law, Section 106 Review Process**

❑ **Heritage Education**

8. Course description **in 50 words or less**:

9. Audience the course is designed for:

10. Co-sponsors for course, if any:

11. Person who can be contacted for more information about the workshop:

Contact Person:

Sponsoring Agency/Organization:

Address of Sponsoring Agency:

Telephone; fax; e-mail; WWW address:

Person completing this form:

_____

Name

_____

Agency/Organization

_____

Telephone # Date

Please return or fax by November 20th to:

Dahlia Dandridge
National Park Service
Heritage Preservation Services (2255)
1849 C Street, N.W., NC-200
Washington, DC 20240
202-343-9595 or 202-343-3803 (fax)
dahlia_hernandez@nps.gov
Please call if you have any questions.

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Carol Shull, Chief, National Historic Landmarks Survey, 1849 C Street, NW, Washington, DC 20240.

New from the Online Travel Itinerary Series

"Places Where Women Made History," the National Register of Historic Places' newest travel itinerary, introduces travelers, researchers, historians, preservationists, and anyone interested in American history to the wide range of historic places associated with the many varied aspects of women's history. With national parks, National Historic Landmarks, and state and locally significant historic properties, "Places Where Women Made History" is also a great way to plan a trip. The itinerary includes interactive maps, descriptions of each place's significance in women's history, photographs, information on public accessibility, essays on women's achievements in American history, and links to other pertinent Web sites. To visit the web site, go to <www.cr.nps.gov/nr/travel/pwwmh>.

New National Register Videos

A new video produced by the National Park Service in cooperation with the National Conference of State Historic Preservation Officers (NCSHPO), "American Legacy: The Work of the National Register of Historic Places," provides a brief look at the efforts of Americans across the country who are using the National Register to preserve important aspects of their past. The video is $15.00 per copy (shipping and handling included) and can be ordered by sending your request and check to: NCSHPO, Suite 342, Hall of States, 444 N. Capitol St., NW, Washington, DC 20001-1512. Please allow 4-6 weeks for delivery.

Historic Landscape Maintenance Conference

A national workshop, "Historic Landscape Preservation: Making Maintenance a Priority," addressing a wide variety of historic landscape preservation maintenance issues, was held at the Presidio, Golden Gate National Recreation Area, in San Francisco, California from August 17-20, 1998. The workshop was developed and co-sponsored by the National Park Service including the Olmsted Center for Landscape Preservation, the Historic Preservation Training Center, Park Historic Structures and Cultural Landscapes and the Golden Gate National Recreation Area in collaboration with the Golden Gate National Parks Association and The Garden Conservancy, Inc.

Lectures and problem solving sessions covered topics such as managing vegetation, maintaining and protecting historic landscape features, protecting archeological features, and sustainable pest management practices. Site visits to eight area historic properties included Filoli, Alcatraz Island, Golden Gate Park, and Dunsmuir House & Gardens Historic Estate. These visits, combined with the lectures, provided participants with practical solutions to complex landscape maintenance problems.

The Olmsted Center for Landscape Preservation promotes the stewardship of cultural landscapes through research, planning, sustainable preservation maintenance and education. For further information, contact the Olmsted Center for Landscape Preservation (617) 566-1689 x260.

National Lighthouse Center and Museum

Staten Island Depot was selected as the site for the future National Lighthouse Center and Museum by the National Lighthouse Museum Steering Committee on July 11. It was one of six finalists. The Depot once served all the lighthouses in the country, acting as the receiving facility for all imported Fresnel lenses. The site is adjacent to the Staten Island Ferry Terminal, whose ferries carry millions of commuters and tourists each year. Five million dollars has been pledged by the Borough, City, and State to fund initial stabilization of the decaying buildings. For the complete press release, see <http://www.cr.nps.gov/history/maritime/nlmsite.htm>.

Lighthouse Preservation News

The *Historic Lighthouse Preservation Handbook* is now available on the web using Acrobat Reader. Go to <http://www.cr.nps.gov/history/maritime/handbook.htm> for more information.

A summary listing of light stations around the country is now available at <http://www.cr.nps.gov/history/maritime/ltsum.htm>. After providing managers and owners with a chance to update their entries, we hope to begin putting up the Inventory information for each light station.

Revised Preservation Brief 2

Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings, a revision of the 1980 *Preservation Brief 2: Repointing Mortar Joints in Historic Brick Buildings* is newly published by Heritage Preservation Services of the National Park Service. This revised edition , written by Robert C. Mack, FAIA, and John P. Speweik, provides general guidance on appropriate materials and methods for repointing historic masonry buildings.

Preservation Trades Network

The Preservation Trades Network is sponsoring the 1998 International Preservation Trades Workshop November 10-12 at the Gaithersburg, MD, Montgomery County Agricultural Center. The workshop focuses on the trades and the skilled crafts and tradespeople who work in historic preser-

CRM on the WWW

CRM has a re-designed presence on the World Wide Web located at <http://www.cr.nps.gov/crm>. The new site features extended archives of past issues available in PDF format, a database containing every *CRM* article from the past 21 years searchable by Title, Author, Subject, and Year, and an online comment and subscription form.

Submit your email address to be included on our new electronic mailing list. You will receive notification of new issues, corrections from the print edition, and links to articles and supplementary information only available online.

vation. The workshop will also feature guest speakers James S. Askins, first Chief of the National Park Service's Preservation Training Center, Harry Hunderman, president of the Association of Preservation Trades International, and Clem Labine, editor of *Traditional Building*. Applications are currently being accepted. Please call 301-545-000 for more information or access one of the web sites at <www.PTN.org> or <www.IPTW.org>.

Call for Award Nominations

The Vernacular Architecture Forum solicits nominations for the Paul E. Buchanan Award, recognizing excellence in fieldwork, interpretation, and public service. Eligible categories include architectural recording projects, historic structure reports, preservation plans, exhibitions, restorations, cultural resource surveys, historic designations, computer or technologies applications, film or video presentations, and educational and interpretive programs.

Projects completed during 1997 and 1998 are eligible. The winning entry will be announced at the 1999 VAF Conference to be held in Columbus, Georgia. The deadline for submission is January 30, 1999. For an application, please write or call Travis McDonald, Thomas Jefferson's Poplar Forest, P.O. Box 419, Forest, VA 24551 (804) 525-1806.

NCPTT

Call for Grant Proposals

The National Center for Preservation Technology and Training (NCPTT) has issued its 1999 call for proposals for its PTTGrants program. It has awarded over $500,000 each year since 1994 for innovative work in research, training, and information management projects on technical issues in historic architecture, archeology, historic landscapes, objects and materials conservation, and interpretation.

Application deadline is mid-December 1998. The 1999 Call for Proposals is available by

- Email: Send a blank message to <pttgrants@ncptt.nps.gov> and the call for proposals will return automatically.
- Fax-on-demand: Call 318/357-3214 and follow the recorded instructions to receive a catalog of documents that includes the call for proposals.
- Web: Visit <www.ncptt.nps.gov> and click on "Preservation Technology and Training Grants."
- Brochure: Request a printed call for proposals by sending an e-mail message to <ncptt@ncptt.nps.gov>, telephoning 318/357-6464, or writing NCPTT, NSU Box 5682, Natchitoches, LA 71497.

For more information, contact John Robbins, NCPTT Executive Director, telephone 318/357-6464, fax 318/357-6421, email <john_robbins@ncptt.nps.gov>.

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