CRM BULLETIN

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Protecting Battlefields
American Battlefield Protection Program

American battlefields represent some of our Nation's most hallowed ground. It was here our ancestors fought for America's closest held ideals: freedom, democracy, human rights, and independence. By visiting these sites and learning of the sacrifices of our forefathers, we gain an understanding of the struggles made yesterday which made possible the freedoms of today.

Since the late 19th century, Federal and state governments have protected significant battlefields. While some of these battlefields are owned and managed by the National Park Service, many are threatened by industrial, commercial and residential development. In 1988, public sentiment resulted in Congressional legislation that enabled the U.S. Government to purchase a historically significant parcel of land adjacent to the Manassas Battlefield Park. Other important battlefields in the country remain unprotected and threatened by encroaching urban development, without historic values taken into account. With surrounding land values escalating, prices often exceed the resources of Federal, state and local government land acquisition and protection programs. Many of the proponents of battlefield preservation efforts believe the time has now come for a national approach to coordinate public/private efforts to preserve these important historic treasures.

Secretary of the Interior Manual J. Lujan, Jr., has moved to the vanguard of battlefield preservation with the announcement of a protection plan that calls for public and private partnerships to save 25 battlefields threatened by development. The Secretary announced the American Battlefield Protection Program in a speech at Manassas National Battlefield Park on July 21, 1990. Mr. Lujan's plan calls for the formation of a commission to work toward a national strategy to protect all Civil War battlefields. Strategy created to protect Civil War battlefields could have broad implications for future Federal, state and local partnerships to protect significant historic property of all kinds against similar threats.

Program Proposals

1. Develop partnerships with Federal, state, regional and local officials and private conservation organizations regarding protection of imminently threatened properties. Efforts will be made to explore all options for their protection, including creative use of public and private land use tools, such as zoning, historic district designation, land and easement acquisition, technical assistance and land banking.
2. Develop and disseminate information on demonstration public/ private battlefield protection projects, such as the plan to protect Richmond National Battlefield Park and other Civil War sites in the Richmond area.
3. Apply limited Federal funds toward promoting protective interest in land and leveraging the purchase of land by private conservation organizations and other public agencies.

4. Underscore President Bush's initiative to prioritize those national parks which have experienced significant increases in visitors and are located in urban areas.

5. Work toward a national strategy to protect other significant battlefield sites not imminently threatened today. Expand the documentation and recognition of battlefields from all wars on American soil so that public and private interests may be alerted about sites worthy of preservation.

In a related development, on July 18, 1990, Senator Dale Bumpers introduced an amendment to Senate bill 1770, which directs the Secretary of the Interior to study Civil War sites in the Shenandoah Valley. Senator Bumpers' amendment requested the addition of $1 million to the fiscal year 1991 appropriation of the NPS to provide initial funding for the establishment and operation of the Civil War Sites Commission. Senator Bumpers' bill passed the Senate the last week of July and, as of this writing, is awaiting action in the House.

Secretary Lujan has also indicated that he will request an additional $15 million in FY91 funds for the NPS to provide, on an emergency basis, funds to protect Civil War battlefield sites facing immediate threats.

Pending the appropriation of funds in FY 1991 to establish the American Battlefield Sites Advisory Commission, the National Park Service has assigned employees in Washington to begin working on this issue on a part-time basis. They include Marilyn Nickels, chief of the staff; Maureen Danaher and Patrick Andrus, historians; Stephen Morris planner; and John Knoerl, graphic information systems, all of the Interagency Resources Division. Chief Historian Edwin C. Bearss is contributing his considerable expertise and consultation, assisted by Harry A. Butowsky of the History Division.

Any questions concerning this project should be addressed to Chief Historian (418), U.S. Dept. of the Interior, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; 202/343-8163. Any questions concerning the operation of the commission may be addressed to Dr. Marilyn Nickels, Interagency Resources Division (413), at the same address, or call 202l343-9536.

Secretary Lujan's Priority Civil War Battlefields

Alabama Blakeley, Fort Morgan
Arkansas Prairie Grove Battlefield Park
Georgia Kennesaw Mountain National Battlefield Park, Resaca
Kentucky Mill Springs, Perryfield Battlefield
Louisiana Port Hudson
Maryland Antietam National Battlefield, Monacacy National Battlefield
Mississippi Corinth, Corinth Siege
Missouri Bryam's Ford Historic District
New Mexico Glorieta Pass Battlefield
North Carolina Fort Fisher
Pennsylvania Gettysburg National Military Park
Tennessee Franklin Battlefield, Stones River National Battlefield
Virginia Brandy Station, Glendale, New Market Heights, Richmond National Battlefield Park, Shenandoah Valley, the Wilderness
West Virginia Harpers Ferry National Historical Park

Association for the Preservation of Civil War Sites

A. Wilson Greene

No era of American history generates more popular attention than does the Civil War. That interest is now being channeled in a spirited contest between the voracious development appetites of burgeoning suburbia and a new organization dedicated to diverting the bulldozer brigades.

The Association for the Preservation of Civil War Sites (APCWS), headquartered in Fredericksburg, Virginia, is America's only national land trust devoted exclusively to Civil War battlefields and related places. APCWS was incorporated in 1987 and granted tax-exempt status by the Internal Revenue Service early the following year.

The Association's success is due, in part, to the national attention focused on endangered Civil War sites as a result of the "Third Battle of Manassas," where the Federal Government eventually exercised a legislative taking of more than 500 acres slated to become a huge shopping mall and added them to Manassas National Battlefield Park.

The Association is built around the premise that only by acquiring deeded interest in historically significant property can that property's integrity be guaranteed. Consequently, the APCWS pursues donations and purchases of both land in fee and preservation easements. Through the fall of 1990, the APCWS has succeeded in acquiring tracts on eight different Civil War battlefields in Virginia and North Carolina and is engaged in negotiations for more than a dozen additional parcels.

Funding for the APCWS comes primarily from membership dues. More than 1,600 individuals and organizations are active Association members and a campaign aimed at 50,000 Civil War book buyers and magazine subscribers promises to increase that number substantially. Thanks, in part, to two challenge grants from New York's Gilder Foundation, the APCWS has raised nearly $600,000 in three years.

Land acquired by the APCWS is managed in one of several ways. Ideally, the Association conveys its property to a park entity for preservation and interpretation purposes. For example, the Association bought a critical 7-acre parcel at Bentonville, NC and recently donated it to the state for inclusion in the adjacent State Historic Site. In other cases, private historical groups sign cooperative agreements with the APCWS to maintain Association property and provide public access. The APCWS manages some parcels itself, but expends only minimal funds on overhead.

In addition to its real estate function, the APCWS works with local and state governments on zoning issues and site identification. The APCWS sponsors two educational events each year offering historical seminars and tours of threatened Civil War battlefields.

For additional membership information and a further explanation of the Association's work, please write to the APCWS at P.O. Box 1862, Fredericksburg, VA 22402 or phone 703/371-1860. The struggle to preserve our country's tangible Civil War legacy will be decided during the next few years. We invite the participation of *CRM Bulletin* readers in this effort.

A. Wilson Greene is the staff historian at Fredericksburg and Spotsylvania National Military Park and executive director of the Association for the Preservation of Civil War Sites.

GIS Technology Used in American Battlefield Protection Program

Betsy Chittenden

The goal of the American Battlefield Protection Program is to find the right combination of protection tools and strategies that will work for a given battlefield. But each battlefield presents a different protection challenge, since the factors that shape successful protection are always different: the physical resource, the degree of integrity, the terrain, the ownership of the land, the local interest and politics, the threat, even the interpretation needs. Before the unique approach that will work for a battlefield can be determined, analysis must be done of all of these factors and more. The Cultural Resources Geographic Information Systems Applications Center (CRGIS) is working to develop a methodology that uses GIS technology to assist in analyzing battlefield sites. In a recently completed project for the Brandy Station (Virginia) battlefield, the CRGIS staff analyzed data on terrain, hydrography, roads, historic land use, proposed land use, cultural resources, battle action areas, troop movement and position areas, contemporary interpretive viewsheds and historic viewsheds. The analysis identified the areas most crucial to the historic integrity of the battlefield. From this, a variety of resource "zones" were suggested for the Brandy Station battlefield resource. Each zone has its own strategy for protection based on the nature of resources that make up the zone. At the local level—where history buffs, county planners, local developers, landscape architects, professional historians, county citizens, and state agencies have been debating the battlefield's future—reaction to the project has been positive, with all the parties to the debate pleased to have the various issues involved clearly portrayed in a map format. The neutral analytical GIS approach provides all parties with straightforward and accurate information about the resource, from which effective protection strategies can be devised and negotiated.

Historic Preservation Week at Vicksburg NMP

A display on monument restoration was featured in the visitor center at Vicksburg National Military Park to commemorate Historic Preservation Week. The display focused on restoration of the Texas State Memorial at Vicksburg and consisted of photographs, newspaper clippings, and a brochure on monument restoration designed by park staff.

The display of 54 color photographs and accompanying narrative took visitors through the restoration process, highlighting evidence and causes of deterioration—specifically from weathering, acid rain and vandalism. Visitors were able to grasp the complexities of restoration as the photographs showed the variety of tools ranging from fine brushes to welding materials to heavy equipment used to perform the necessary work.

The photographs of the monument restoration work yielded positive results. Visitors made frequent favorable comments concerning the park's restoration program. A donation box was placed near the display money received will be used to continue historic preservation efforts at Vicksburg NMP.

Three Perspectives on Preservation Planning

Bruce J. Noble, Jr.

The role of planning in improving state and Federal management of cultural resources served as the theme of a recent group presentation entitled "Developing Effective Cultural Resource Plans." This presentation was one of over two dozen sessions offered during the “Preservation Challenges for the 1990s" conference held in Washington, DC on June 5-7, 1990. This article will summarize the perspectives offered by three speakers during the conference session on cultural resource planning.

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Pat Stein, preservation planner in the Arizona State Historic Preservation Office, was the first speaker. In Arizona, not only does 44% of the total land area fall under Federal ownership, but also agencies sponsor many undertakings on nonfederal land which still require the Federal government to provide a license, funding, or other forms of assistance. Thus, the Arizona SHPO program must devote considerable time to reviewing Federal agency projects to monitor compliance with Section 106 of the National Historic Preservation Act. This orientation has strongly influenced the development of the SHPO preservation planning process in Arizona.

In certain cases, the SHPO and Federal agencies in the state have difficulty reaching agreement about a particular resource's National Register eligibility. These situations usually find the SHPO supporting eligibility with the agency opposed. Experience has demonstrated that these disagreements do not result from agency efforts to circumvent the Section 106 process or from overzealous application of the National Register criteria by the SHPO. Instead, most disagreements revolve around resources whose significance is difficult to determine within the broad framework of the National Register criteria.

To address such concerns, the Arizona SHPO has developed a system for evaluation of "problematic" property types which involves use of "fully developed historic contexts." These contexts consist of the following components:

a narrative overview outlining a historical or archeological theme within a defined region during a defined time period;

a list of property types associated with the theme;

characterization of property type locations within the region;

a detailed analysis of property type significance;

a discussion of the integrity requirements necessary for determining the property type's National Register eligibility;

an explanation of threats to the resource base;

identification of research gaps which need to be filled to perform further identification, evaluation, or treatment activities;

a prioritized list of management strategies.

In using this formula to develop historic contexts, the Arizona SHPO does not work solely within their own office. Rather, context development takes place as part of a broader

initiative for building consensus between the SHPO and Federal agencies operating within the state. To achieve this goal, two committees have been established. One committee has a prehistoric orientation, while the other has a historic focus. The committees consist of representatives from Federal agencies, the SHPO staff, academia, and private sector preservation groups.

During the year, the SHPO staff maintains a "context log." This log identifies property types whose significance the SHPO and a Federal agency cannot agree upon. The committees meet once a year to review the context log and to try to detect patterns indicated by the lack of consensus.

Based on what the patterns reveal, the committees may recommend the development of certain contexts to facilitate understanding of a particular property type. In response, the SHPO staff will sometimes initiate preparation of the context and, in other cases, contexts will be developed under contract. The committee members comment on all drafts of these contexts. In the end, a context document is produced which helps to build consensus between the SHPO and Federal agencies by providing a body of information which will assist in evaluating properties whose significance had previously been a matter of debate.

Concluding points included an acknowledgement that producing fully developed contexts is both labor intensive and costly. In many cases, neither the SHPO staff nor the Federal agencies have the personnel and money necessary to develop all the contexts needed. In spite of these concerns, the SHPO staff has witnessed increased use of historic contexts by Federal agencies and notes with satisfaction that their state preservation planning process produces useful documents which frequently come off the bookshelves and into the hands of people who need them.

Judy Propper, regional archeologist in the Southwest Region of the U.S. Forest Service, spoke next. The Southwest Region of the U.S. Forest Service administers 11 national forests consisting of over 20 million acres in New Mexico and Arizona. The region also oversees three national grasslands in Texas and Oklahoma.

The National Forest Management Act (NFMA) of 1976 established the modern framework for resource management planning in the U.S. Forest Service. The NFMA implementing regulations, issued in 1979 and 1982, defined two planning levels. Planning guidelines would be developed at the regional level. These guidelines would be employed at the national forest level to produce detailed plans.

The implementing regulations listed cultural resources among 14 principles upon which to base overall forest planning efforts. In addition, the regulations listed cultural resources among a group of subjects destined to receive individualized treatment in further planning studies. Thus, the opportunity existed to move ahead with specialized cultural resource planning activity.

In reality, however, cultural resource management in the Forest Service during the early 1980s did not move beyond completing the basic minimal work required to allow other resource management activities to proceed. The small amount of money allotted to cultural resource activities did not allow for the initiation of serious planning efforts. As a result, forest plans generally included only generic cultural resources "boilerplate" stating that forest management would occur in accordance with the National Historic Preservation Act, Section 106 would be complied with, and eligible properties would be nominated to the National Register. In short, cultural resources had not entered the agency's planning mainstream.

This situation changed in 1984 when the region's cultural resource program became the target of a lawsuit. After two years of litigation, an out-of-court settlement was reached. With respect to planning, the settlement agreement specified that the individual forests would each prepare cultural resource planning assessments which would more fully address the NFMA regulations.

The planning assessments provided an opportunity to analyze the cultural resource work undertaken in individual forests in the past. This analysis then served as a basis for recommending future projects and management initiatives. The region is now using the plan amendment process to incorporate the recommendations resulting from the planning

assessments into each of the individual forest plans. This represents a major step in the direction of elevating the profile of cultural resources in the Southwest Region forest planning process.

Among her concluding points, Judy Propper stated, "For years in the Forest Service, archeologists like myself were so wrapped up in the struggles of compliance with Section 106 that we thought we didn't have time to get involved in the tedious and rather abstract workings of long-range planning." However, experience has taught that planning offers a way to assure that the management process commits to the present and future preservation of valuable cultural resources. If the importance of including cultural resources in the planning process is not recognized, Federal agency cultural resource professionals will provide only "a support service for the management of other resources and many opportunities will be lost."

Brit Storey, senior historian with the Bureau of Reclamation in Denver, CO, concluded the session on planning. In delivering his presentation, Brit also drew on 14 years of experience at the Advisory Council on Historic Preservation. Commenting on the session's planning theme, Brit remarked that perhaps his talk should have been titled, "A Plan Without the Underpinnings of Money and Staff is Merely a Dream."

The entire national preservation program was once intended to serve as a planning process for Federal agencies. Section 106, the National Register, and Section 110 all represent components of that planning system. However, the structure of this system has changed considerably over time.

The National Register, for example, was originally envisioned as a Federal agency planning tool. The National Register offered a means of incorporating information about significant cultural resources into an agency planning process. Presently, the overall national preservation program has reached a point where Federal agencies have little interest in using the National Register as a planning tool. Federal agencies find it easier and cheaper to enter into consensus eligibility agreements with SHPOs. Most Federal agency cultural resource personnel believe that a property determined eligible through this process serves the same planning needs as a property nominated to the National Register. Still, agencies may want to prepare nominations when seeking special objectives such as commemorating a certain aspect of agency history, developing information for interpretive programs, or drawing attention to a resource of particular importance.

The Advisory Council, the National Park Service, and the SHPOs serve in a "semi-regulatory" capacity in that each provides various sorts of advisory direction to Federal agency historic preservation programs. In spite of all the well-intentioned advice, agencies rarely have the staff necessary to implement the comprehensive preservation programs which all the "regulators" envision. In the "real world" experience of Federal agencies, archeologists must sometimes oversee the rehabilitation of historic buildings and architects must coordinate the stabilization of an archeological site. Federal agency cultural resource staffs need personnel with expertise in archeology, architecture, history, and sometimes ethnography. Rarely do such staffs exist.

Given these staff limitations, most agencies do not have the luxury to engage in comprehensive planning. Agencies should develop historic contexts as the basis of their planning activity, but they frequently lack the money to implement their basic program objectives. Under these circumstances, planning remains a remote possibility as agencies scramble to keep their cultural resource programs afloat.

The Bureau of Reclamation has encountered a number of planning challenges in the process of managing their 8.5 million acres of land located in 17 western states. Recently, Jim Maxson, Reclamation's Federal Preservation Officer and chief archeologist, has developed a Program Mission Statement which serves as a plan for implementing the agency's historic preservation responsibilities. The mission statement includes tasks divided into the following areas: comprehensive inventory of historic properties on Reclamation lands, inventory of Reclamation-constructed projects and their features, development of regional management plans for historic properties, a public education and information program, and a process to assure appropriate curation of artifacts and records.

The mission statement establishes a five-year deadline for identifying all historic and archeological sites on 25% of the land managed by the Bureau of Reclamation. When accounting for land already surveyed, this deadline will require reclamation to survey 3% of their total land area during each of the next five years. At this pace, 28 years will pass before completion of the entire inventory.

The magnitude of this lengthy inventory task indicates certain impediments. In addition to the time required to complete the inventory, the process will ultimately discover thousands of National Register properties. An expensive database will have to be developed in order to effectively use the inventory information as a planning tool. If an agency with more extensive landholdings embarked on this sort of inventory project, the expenditure of considerably more time and money would obviously result.

To further complicate matters, Federal agencies must work within the framework of a national preservation program which emphasizes the uniqueness of each SHPO program. Often working out of centralized regional offices which conduct projects in a number of states, agencies have to deal with multiple SHPO programs, each of which interpret their preservation responsibilities somewhat differently. The need to use different inventory forms in each state forces agencies into a confusing confrontation with the lack of national inventory standards.

Brit Storey concluded by stating that the national preservation program has operated effectively during the 24 years since the enactment of the National Historic Preservation Act. The program has demonstrated sufficient flexibility to evolve to meet changing needs. Brit expects this evolutionary process to continue into the future.

In summary, each of the three speakers discussed preservation planning activity within the context of the western United States where preservation efforts remain focused on the need to minimize the impact of Federal projects on cultural resources. Pat Stein discussed the way in which the Arizona SHPO planning process helps to successfully manage Federal agency cultural resource activity in the state. Judy Propper recounted efforts to integrate cultural resource planning into the broader agency resource planning structure in the Southwest Region of the U.S. Forest Service. Finally, Brit Storey highlighted some of the difficulties which Federal agencies can expect to encounter when launching a comprehensive planning process. While not suggesting that we have yet reached a state of planning nirvana, the three speakers demonstrated that planning has assumed an important role in many cultural resource management programs.

Bruce Noble is a historian in the Interagency Resources Division, National Park Service, Washington, D.C.

Federal Preservation Forum

Brit Allan Storey

In early December of 1989, the Bureau of Reclamation proposed a meeting to determine whether there was interest in forming an organization that would permit constructive dialogue among the major participants in the Federal historic preservation program—the Federal agencies, the National Park Service, the Advisory Council on Historic Preservation, and the State Historic Preservation Officers. Information exchange, improved communications, and constructive dialogue within the program were envisioned as the primary objectives of such an organization, as well as means of improving the economy and efficiency of agencies' historic preservation programs.

A meeting was held in Denver and was co-sponsored by most of the active Federal Historic Preservation Officers. The meeting was attended by 75 people from 24 different agencies and offices from coast-to-coast. It attracted a broad diversity of professional training including engineering, archeology, architecture, history, and landscape architecture. A steering committee held three planning meetings in early 1990 to develop by-laws and the basic organization. The membership adopted by-laws of the Federal Preservation Forum on June 8, in Washington, DC.

The next meeting of the organization will be hosted by the Southwest Regional Office of the National Park Service in Santa Fe November 13-15, and another meeting is planned for Washington, DC in the spring of 1991. Planning for the meetings in Santa Fe and Washington is underway. The program committee for the Santa Fe meeting consists of Evan DeBloois (FTS: 447-7754) of the Forest Service, Diane Gelburd (FTS: 447-2307) of the Soil Conservation Service, and Bruce Eberle (FTS: 366-9173) of the Federal Highway Administration. They are soliciting suggestions for the meeting. Suggestions for the meeting in Washington, DC may be addressed to Brit Storey (FTS: 776-8723) of the Bureau of Reclamation.

The meeting in the fall of 1991 will be hosted by several agencies in Seattle, Washington, and the spring 1992 meeting will be in Washington, DC. Included in the organization is a semi-independent standing committee consisting of all agency Historic Preservation Officers who are members of the Federal Preservation Forum.

Objectives and Purposes The Federal Preservation Forum shall seek to enhance the quality, efficiency, and economy in, as well as cooperation among, all aspects of Federal historic preservation programs through:

Constructive dialogue among the major participants in the Federal historic preservation program including: Federal Preservation Officers and their staffs, field personnel in Federal agencies, the programs of the National Park Service, the Advisory Council on Historic Preservation, the National Conference of State Historic Preservation Officers, the National Trust for Historic Preservation, and other groups and individuals.

Information exchange at meetings, training, workshops, in publications, and through other appropriate means in order to improve agency programs.

Awards and professional recognition programs.

Better and broader lines of communication between field personnel implementing the programs and policy-making personnel in headquarters offices.

Professional enhancement and the development of a professionally-trained and recognized work force in the Federal historic preservation program.

The officers of the Federal Preservation Forum are president Brit Storey (Bureau of Reclamation, Denver), president-elect Even DeBloois (Forest Service, Washington, DC), secretary/treasurer Bruce Eberle (Federal Highway Administration, Washington, DC), and

secretary/ treasurer-elect Kevin Kilcullen (Fish and Wildlife Service, Washington, DC). The Board consists of E. Gail Throop (Forest Service, Portland, OR), Constance Werner Ramirez (U.S. Army, Washington, DC), Ron Anzalone (Advisory Council on Historic Preservation, Washington, DC), Bill Willingham (Corps of Engineers, Portland, OR), Kevin Clarke (Department of Energy, Richland, WA), Tom Mulhern (National Park Service, San Francisco), David Guldenzopf (U.S. Army, Fort Drumm, NY), Gordon Peters (Forest Service, Duluth), and Jeanene Peckham (Environmental Protection Agency, Dallas).

The nominating committee includes chair Ruthann Knudson (NPS Washington, DC), Jerry Wylie (Forest Service, Odgen, UT), John Douglas (Bureau of Land Management, Washington, DC), Annetta Cheek (Office of Surface Mining, Washington, DC), Edward Friedman (Bureau of Reclamation, Denver), and John Anfinson (Corps of Engineers, St. Paul, MN).

Membership is open to any individual who is interested in and subscribes to the objectives of the organization. Any person directly employed by the Federal Government may become a voting member, and others may become non-voting members.

Questions or requests to be included in the membership list of the organization may be addressed to the Executive Secretary of the Federal Preservation Forum: Ms. Marilou Reilly, Preservation Assistance Division (424), National Park Service, P.O. Box 37127, Washington, DC 20013-7127.

Restoring a Historic Brick Wall

Mark Ragan

It is not unusual to find handmade brick structures in this country. The National Park System contains buildings, fortifications, bridges, and walls for which there seems to be an endless need for maintenance and restoration. NPS policy states that it is better to maintain original work than to restore it, and to restore original work by original means than to reconstruct it.

At Andersonville National Historic Site, a project to restore a 4,400' wall is nearing completion. Under the direction of NPS brick mason Marvin Barney, the wall's mortar joints are being replaced using original methods. This task, being done entirely by hand, would not be possible under current budgetary restrictions if it were not for outside help.

Background

In June 1878, the U.S. Government contracted for the construction of a 5' brick wall around the 25-acre National Cemetery. The brick was made locally using native red Georgia clay and fired to produce a quality brick that met government standards. The mortar was a combination of that same clay, sand, and lime. Even with 25-30 workers, plus a mason staff of 5, the work was not completed until August 1879.

Weathering over time has eroded much of the mortar from the wall. During U.S. Army operation of the National Cemetery, cement was used to "patch up" the wall. The original mortar mixture allowed the wall to be resilient and for moisture to evaporate through the joints. The cement replacement, however, reversed the process, allowing the brick to retain the moisture and making the wall very rigid because the cement was not as porous or flexible as the original. This led to the destruction of the brick work.

Current Project

The restoration used the original mortar mixture, with the addition of a little Portland cement, thus allowing the mortar to work as it was intended. The project involved the careful removal of decayed, original mortar and the earlier replacement cement. This was followed by the placement of the new mortar by mason Barney.

The task doubled after a CCC-era driveway was removed in 1989. This concrete driveway entered the cemetery through the brick wall at a point which previously had no entrance. After removing the driveway slab, the original foundation of the wall was uncovered. This allowed NPS staff to see for the first time the construction methods used for the foundation. An almost mirror image of the wall was laid 4' underground to serve as a foundation for the 5' we see today. Fortunately, the mortar and brick at this point was in fine shape, not being exposed to natural weathering. The open section was rebuilt to match the original, using salvaged original brick. Through this experience, mason Barney was able to better know the resource he was working with and adjust his work accordingly.

What has made this project possible for the last five years is a unique arrangement between the NPS and the Georgia Department of Human Resources. The NPS has a contract with Quality Enterprises of Montezuma, GA to provide five laborers to assist the NPS mason. This company employs the developmentally disabled on an arrangement through the Macon County Mental Retardation Service Center of the Georgia Department of Human Resources. The current funding brought in instructor J.W. West and workers Clarence Marshall, Kenneth Coggins, John Mallard, and Tim Jackson. Mr. West, along with Marvin Barney, trained the workers in removing the decayed mortar. Working on two planned 20' sections at a time, Barney is able to mix the mortar and apply it while fresh, minimally exposing the raked out

sections to the elements. Mr. Barney has indicated that the restoration would be nowhere near as far along as it is (about 3/4 completed) if it were not for this special arrangement.

Although this method of restoration is not new, the unique "team" effort is. For Andersonville National Historic Site, a valuable cultural resource is being preserved while keeping over 90% of the original fabric. Simultaneously, a special population is being recognized for their value to themselves and the community through training and work. The benefits of such an arrangement go beyond fiscal limitations of the NPS to enhance our relationship with the local community in a cooperative effort to preserve our cultural heritage.

Mark Ragan, park ranger at Andersonville National Historic Site, is the acting historian/curator for the site.

A Trip to MARS

Pam West

You don't have to take a space shuttle or a rocketship to get there, but you do have to drive on some of the fastest roads in the Nation's Capital. The Museum and Archeological Regional Storage Facility (MARS) functions as the central repository for historic, archival, archeological, ethnographic and natural history artifacts which cannot be properly stored at a park. MARS is located in Lanham, MD, and serves the parks of the National Capital Region.

This 25,000 square-foot museum storage facility (some call it a warehouse) is designed to provide the parks of NCR with a secure, climate-controlled facility where they can store their collections in accordance with NPS museum standards. The facility houses approximately 100,000 historic objects, 40,000 historic photographic negatives, and 1 million archeological artifacts. Collections come from such diverse sites as the Frederick Douglass National Historic Site, the Clara Barton House, Arlington House, Manassas Battlefield, Chesapeake and Ohio Canal, Harmony Hall, Rock Creek Park, Harpers Ferry National Historical Park, Ford's Theatre and Antietam Battlefield.

The history of MARS goes back almost 15 years. A centrally located facility was needed because NCR sites lacked proper storage space. Initially 6,000 square feet of space were located at the newly renovated Union Station (National Visitor Center). When the building was transferred to the Department of Transportation we had to find a new home.

In November 1982 the MARS facility opened and seven tractor trailer loads of furniture and equipment were moved in. The awesome task of designing and building the storage facilities began. Since then additional artifacts have continued to come into the facility. As the collections grow, so does the need for innovative processing and storage techniques and the need for volunteer and intern programs. Computers track the artifacts in, out and through the facility because many of the artifacts go back and forth to the parks for seasonal changes and exhibit purposes. The Integrated Pest Management (IPM) program for the facility, which currently monitors 150 traps of various sizes and shapes, is also automated.

All the collections in the facility belong to the parks and are on custodial loan to the facility with the parks maintaining overall responsibility. The MARS staff ensures that all artifacts are stored properly in the best possible environment. The staff also supports the parks in short-term archeological field investigations and collection processing, including cataloging, IPM, photography, packing and transportation, light surveys and curatorial supplies.

The facility houses two unique collections: the Ethnographic Collection of the Department of the Interior and the Vietnam Veterans Memorial Collection. The Ethnographic Collection consists of Native American objects that were gathered around the turn of the century from both the states and the territories. Over 2,000 objects are in this collection. Most of these objects were displayed previously in the hallways and museum at the Interior Department building. The Vietnam Veterans Collection consists of objects that have been left at the Vietnam Veterans Memorial by visitors. These objects consisted of flags and flowers normally left at many war memorials, as well as medals such as purple hearts, ribbons, patches, buttons, uniform parts, photographs, letters and teddy bears. The leaving of these objects was totally unexpected and unprecedented anywhere as far as we have been able to determine.

The Vietnam Veterans Memorial (VVM) itself has no buildings associated with it, so the decision to keep the offerings meant they would be stored at MARS along with all the other collections in the region. The VVM collection now numbers over 15,000 objects and continues to grow. The collection is subject to frequent exposure to the public through the news media. The curatorial staff of the facility has appeared on local, national and world-wide television, radio and print. While requests from the media take up a great deal of staff time, the exposure provides us a way of sharing the preservation message of the NPS.

Volunteer and intern programs set up at MARS, both in the history and archeology programs, are a source of staff pride. The archeology program allows volunteers to take part

in all areas of archeology including field and laboratory work. Exciting archeological discoveries, such as the burned remains of an earthfast house at Harmony Hall, Maryland, circa 1692-1719 or 6' of stratified historic deposits beneath the floor of the ell at the Peterson House (House where Lincoln Died) in Washington, D.C., have received local and national press. The history volunteer program allows people to work at MARS in the areas of storage, photography, identification and cataloging and includes an outreach volunteer program where veterans' newsletters and organizations help contact veterans who can help in identifying objects from the Vietnam Veterans Collection. The archeological program uses interns and cooperative students from the University of Maryland, and the history program uses hearing-impaired interns from Galluadet University.

MARS' management combines professionals from the Operations Division (the curators) and the Professional Services Division (the archeologists) who work closely together to care for the cultural and natural resources of the National Capital Region using the most current technology available. MARS is managed by site manager David Guynes under the overall direction of regional curator Pam West. They are assisted by museum technicians Jeanne Lavelle, Kim Robinson and Duery Felton. Direction for the archeological portion of the facility is provided by regional archeologist Dr. Stephen Potter with the lab managed by Robert Sonderman. They are assisted by archeologist Matt Virta.

When the MARS facility is full, it is expected to house almost 200,000 historic objects and two million archeological artifacts. That is quite a lot of history under one roof!

All of this would not have been possible without the support of the regional director and his staff and the encouragement of the chief curator's office. Their awareness of the importance of our resources and the need to document and retain them for future generations has allowed the concept of MARS to grow into the "model storage facility for the National Park Service" according to the American Association of Museums Accreditation Team.

Pam West is regional curator, National Capital Region, National Park Service.

A Personal Perspective

The Planting Stick

Marion R. Miller

Sixteen years ago, then Southwest Regional Historian William E. Brown offered a timely suggestion for training that would: "... explore the phenomenon of ethnocentricity— Anglo and otherwise—to discover the flash points and buttons that disturb various components of our clientele. It would seek out new sources of history and of historical viewpoint so interpreters could better balance area themes and emphasis." Printed in the first edition of *In Touch,* an interpreters' newsletter published by the Washington Office, Brown's letter closed with the necessary question, "Who is going to initiate such training, and when?"

In May 1989, 24 National Park Service professionals met at Olympic National Park to experience a very successful week of training that addressed one aspect of Bill Brown's interpretive challenge in the first course of its kind, titled *Interpreting Native American Cultures.* Responding to recommendations by trainees at a recent session dealing with critical issues faced by curators, Mike Watson, Washington Office Division of Interpretation, proposed that a course be coordinated that would put Native Americans in the position of instructors to NPS staff members in a variety of disciplines servicewide. The superintendent and staff at Stephen T. Mather Employee Development Center, with Anthropology Division collaboration, met his request in less than four months with commendable results.

This dynamic course (Program Code 9960) expands upon the thrust of NPS management policies as they address cultural and natural resource concerns, museum collections, exhibits, and interpretive programs that relate to Native American cultures.

Seven NPS regions (22 sites) and the Harpers Ferry Center were represented among the participants of this first offering, several of whom also served as instructors in panel discussions and individual presentations. Lanny Pinola, Indian cultural demonstrator from Point Reyes National Seashore, opened the week with a prayer, having commanded our attention by observing that, "One difference between your culture and mine is that in my culture there is no separation of church and state." This theme was eloquently repeated in virtually every session on the agenda, and the week ended as it had begun, with a prayer.

By examining our own concepts of what our culture is, and through comparison of those perspectives with a broad variety of Native American views of their own heritage, we came to realize that ethnocentricity is indeed a phenomenon that influences our lives and is seemingly self-perpetuating. An example of this occurred when each of us was asked to name three items that we would include in a museum exhibit meant to represent our hometown culture. Being a midwest son, I selected three "artifacts" that I felt sure would neatly sum up the progression of techniques in agriculture in the United States. Stepping squarely into the trap, I proudly announced my choices; a horse-drawn plow, an early steam-powered thresher, and a modern, 200-horsepower diesel tractor, each to be displayed with appropriate graphics to show the great strides in crop production that accompanied their respective periods of use. Neat, clean, *American.*

Later in the day, Ed Ladd, curator of ethnology at the Museum of Indian Arts and Culture in Santa Fe, approached me with admirable patience to suggest that I would do well to consider including a planting stick in my exhibit. What seemed at first an inappropriate idea quickly became a simple lesson when he explained that his pueblo ancestors, using planting sticks and their knowledge of the earth, managed not only to feed themselves but to satisfy as well the corn production quotas imposed upon them by Spanish *conquistadors* in the southwest, over 400 years ago. The analogy was clear, as was the philosophy of his perspective; there is no cultural monopoly on inherent human ability.

Overcoming a self-deception that underlies, yet today, the common representation of western American history, I acted upon the lesson of the digging stick in seeking the advice of another instructor, Victor Masayesva. A talented film producer, he had concluded his presentation with a statement to the effect that any Columbian-New World observance would be "ludicrous" without addressing the consequences of that event on Native American cultures since. My question dealt with the misconception that what European immigrant cultures had to offer Native Americans was somehow a "better way of life" than that which they had pursued for centuries. While I had represented a key historical figure at my park as a friend, a benefactor, of the Oglala Sioux, I had been uneasy with the fact that he had also served as a civilian scout and guide for the Eighth Cavalry in New Mexico during their pursuit of Geronimo and his people. These two aspects of his life story seemed inconsistent, and I found myself emphasizing what has come to be called the "happy face" version of this period of history— that Native Americans only benefited from his presence. "Should I even try to point out this irony?", I asked of Victor, "would it serve any purpose?" Sensing perhaps that the training was beginning to have the desired effect, and with a smile that parted the clouds of the Olympic Peninsula, he simply replied, "Sure, why not? Your visitors not only have a right to know that story,' he explained, "they also have a *need* to know it."

And so we have an official training opportunity, at last, in which to *listen,* to be affected. Watch for it, attend it if possible. Renew your commitment to the principles that we all represent; a solid way to start is by reading the NPS Management Policies, with particular and open-minded attention to references therein to Native American concerns.

Seek out the National Native News on National Public Radio; view Native American cultures as *resources,* not historical curiosities that ceased to exist years ago. If you are a specialist in the fields of anthropology, archeology, history, or museum curation, offer to give a talk to the interpretive staff at your park—*share* what you know, and do, and feel. The cultural resources that we manage—that we interpret—are far more than inanimate objects.

They embody much of what the National Park Service is.

When the 25th Anniversary of the Gateway Arch is marked this October, will we recognize it as that symbol which puts into artistic shape the glory of the westward movement, or will we "... seek to present factual, balanced, and to the extent achievable, value-neutral presentations of both native and nonNative American cultures, heritage, and history", as directed by Chapter 7 of the Management Policies?

During a recent visit to a national park with archeological resources as its primary focus, I found myself staring at an item in one of the concessioner's stores that is difficult to explain. It was a toy set, "Big Chief" brand, consisting of a fluorescent-feathered headdress and a rubber tomahawk, and after all the questions had surfaced in my mind, the one feeling that I left there with is that we have a long way to go in this agency, to be what we say we are about. Thanks to the dedicated people who made the first *Interpreting Native American Cultures* course a reality, we are learning to walk... *and to listen.*

Reid Miller is a park ranger at Agate Fossil Beds National Monument. His interest in Native American cultures began in 1971 when he first read *Across The Wide Missouri* by Bernard Devoto.

Preservation Technology Update

Historic Log Structures

A Selected, Annotated Bibliography

Anne Grimmer, Paul K. Williams, Sherda K. Williams

General History, Log Building Types and Construction Methods

Angier, Bradford, *How to Build Your Home in the Woods.* New York: Hart Publishing Co., c.1952.

Angier's book is a how-to text on building rustic log structures. It is filled with tips on new log construction, only some of which may be relevant to working with historic log buildings.

Cotton, J. Randall. "Log Houses in America." *The Old-House Journal. Vol.* XVIII, No. 1 January-February 1990), pp. 37-44.

This brief survey traces the history of the log house and the ethnic variations that influenced the form of the log structure in different regions of the U.S. The article includes information on types of notching, building sizes, shapes and room configuration. The article is well-illustrated, in color, with mostly eastern (mid-Atlantic and southern) examples.

Glassie, Henry. *Pattern in the Material Folk Culture of the Eastern United States.* Philadelphia: University of Pennsylvania Press, 1968.

This classic study of material folk culture addresses the evolution of housing forms, including log houses. Glassie provides floor plans, elevations and photographs to illustrate the progression of regional housing types. He also offers explanations as to why traditional folk forms were or were not suitable for adaptation in the United States.

Jordan, Terry G. *American Log Buildings: An Old World Heritage.* Chapel Hill, NC: University of North Carolina Press, 1985.

This book investigates the European origins and the American evolution of early log construction. It has excellent photographs showing European log structures as precedents for American log buildings, and an extensive bibliography.

Kniffen, Fred. "On Corner-Timbering." *Pioneer America. Vol. 1,* No. 1 January 1969), pp. 1-8.

Many styles of cornering, the purpose of which is to lock the logs securely in place, were favored by different groups of American pioneers. Variations in the different notching types are illustrated and discussed here.

Log Cabin Architecture: A Bibliographical Update to A~90. Prepared by Coppa and Avery Consultants. A-1622 Architecture Series Bibliography. Monticello, IL: Vance Bibliographies, July 1986.

This bibliography includes 66 entries and is an update of *Log Cabin Architecture.* May 1981, Number A-490 of the Architecture Series Bibliography. This bibliography covers books and articles on log construction, specific log structures, and conservation and restoration of log structures.

Mackie, B. Allan. *Notches of All Kinds, A Book of Timber Joinery.* Price George, B.C.: The Canadian Log House Publishing Co., Ltd., 1977.

This clear how-to book may be useful in reconstruction or interpretation of notching methods in log construction. Includes a brief section on "Tools for Notching," and then details the techniques of joinery.

Meehan, James. "Demonstrating the Use of Log House Building Tools at the New Winsor Cantonment." *Association for Preservation Technology Bulletin.* Vol. XII, No. 4 (1980), pp. 38-44.

This article may be useful in the development of interpretative programs at historic log structures as the author details the way tools were used in the building process.

Mercer, Henry C. *The Origin of Log Houses in the United States.* Reprinted from *A Collection of Papers Read Before the Bucks County Historical Society, Vol.* V (January 1924), pp. 568-583, with additions. Doylestown, PA: The Bucks County Historical Society, 1976. This often-cited study by Mercer discusses European precedents for American log structures and describes various typologies in detail.

Noble, Allen G. *Wood, Brick & Stone: The North American Settlement Landscape. Vol. 1: Houses. Vol.* 2: *Barns and Farm*
Structures. Amherst, MA: The University of Massachusetts Press, 1984.

Both of these volumes trace diffusion of different typologies of structures in the U.S., with a minor emphasis on log structures. It is one of the few texts to address Native American and African-American typologies.

Shurtleff, Harold R. *The Log Cabin Myth: A Study of the Early Dwellings of the English Colonists in North America.* (Reprint of the original edition edited with an introduction by Samuel Eliot Morison. Cambridge, MA: Harvard University Press, 1939.) Gloucester, MA: Peter Smith, 1967.

Through a lengthy analysis and discussion of definitions, the author differentiates between the types of buildings first constructed by the early American colonists. He states that there is little precedent for the use of the word "log" in American writings before the 18th century, and that in areas settled by the English, French or Dutch, there is no evidence of log construction because it was not a building technique familiar to them. The author seeks to dispel the common myth that the first structures built by colonists in the New World were log.

Stratton, Robert. "Stovewood Barns." *Michigan History. Vol.* 74, No. 1 January-February 1990), pp. 40-44.

Stovewood barns were built using a method called cordwood or stackwood construction. Although uncommon elsewhere in the United States except some parts of the midwest, there

are numerous stovewood barns in the Upper Peninsula of Michigan, many of which were built during the Depression years of the 1920s and '30s because they were cheaper, and required less manpower and skill to construct. The building technique probably originated in northern Europe or Finland.

Weslager, C.A. *The Log Cabin in America: From Pioneer Days to the Present.* New Brunswick, NJ: Rutgers University Press, 1969.

This book is a narrative account of the role of the log cabin in early American life, including the politics and perceptions of log cabins, and of their symbolism. Photographs and illustrations offer views of log construction in Europe and throughout the United States.

Regional Log Building Studies

Arnoti, Brigitta. "The Log House Tradition." *Canadian Heritage. Vol.* 11, No. 4 (October-November 1985), pp. 27-29.

This short article focuses on the world's largest log structure, the Chateau Montebello situated on the Ottawa River in Canada. Originally built as a private resort, this 200-room hotel was constructed during the Depression in 1930 in less than 4 months.

Donovan, Clemson. *Living With Logs: Log Buildings and Rail Fences.* Saanichton, B.C.: Hancock House, 1974.

This is a photographic and descriptive essay on log structures in British Columbia. It may be useful for identification of log building types and for some historical background.

Elbert, E. Duane, and Keith A. Sculle. *Log Buildings in Illinois: Their Interpretation and Preservation.* Illinois Preservation Series: Number 3. Springfield, IL: Illinois Department of Conservation, Division of Historic Sites, 1982.

This publication consists of 2 parts: Part 1 discusses the history and interpretation of log buildings in Illinois, and Part 2 is an introduction to the subject of preserving and restoring log buildings. It is intended to raise awareness about the subject and includes a brief explanation of the various types of log construction, and guidance that is applicable for researching and documenting any historic log structure in order to prepare for accurate restoration or reconstruction.

Glassie, Henry. "A Central Chimney Continental Log House." *Pennsylvania Folklife.* Vol. 18, No. 2 (Winter 19681969), pp. 32-39.

The author discusses characteristics of a certain type of log house that make it distinctive that appear to have been transported by German settlers to southeastern Pennsylvania, from whence it spread to surrounding areas of New Jersey, Maryland, Delaware and Virginia.

. "The Types of the Southern Mountain Cabin." (Appendix C) from Jan H. Brunvand *The Study of American Folklore.* New York: W.W. Norton, 1969. pp. 338-370.

The author discusses the origins and evolution of the two basic cabin types—square and rectangular. They are classified as "cabins" because both types are composed of a single construction unit, and both are less than two stories high. The southern mountain region is defined by the author as including the Blue Ridge from northern Virginia to northern Georgia, but it does not include the Cumberland Mountains, the southern tail of the Blue Ridge and most of the Tennessee Valley, because of this area's more southern orientation.

Hutslar, Donald A. *The Architecture of Migration: Log Construction in the Ohio Country, 1750-1850.* Athens, OH: Ohio University Press, 1986.

This is a very detailed book covering all aspects of traditional log construction. A 28-page narrative is included on the restoration of log structures with details on maintenance problems, budget, physical deterioration and correct procedures for rehabilitation. The book contains many photographs, drawings and plans, and a large bibliography.

*The Log Architecture of Ohio. Co*lumbus, OH: Ohio Historical Society, 1977.

This monograph, while focusing only on log architecture in Ohio, does include relevant information on technologies, tools, and dating that is useful for all historic log structures. Hutslar includes a good bibliography with many primary resources, photographs and illustrations.

. "Symbolism, Nostalgia, and Reality: Log Construction in 19th Century Ohio." *Timeline. Vol.* 2, No. 3 (June-July 1985), pp. 26-53.

Profusely illustrated with excellent photographs by the author, this article was excerpted from "The Architecture of Migration: Log Construction in the Ohio Country, 1750-1850." Like the book, this article looks at technological and stylistic subjects including design, proportion, time and cost of construction, tools and techniques of woodworking, and also provides a general history of log construction.

Jordan, Terry G. *Texas Log Buildings: A Folk Architecture.* Austin, TX: University of Texas Press, 1978.

Written by a cultural geographer, this study, well-illustrated with photographs and drawings, characterizes Texas log architecture according to major cultural influences: Anglo-American, Black, Hispanic, German, Slavic, Scandinavian, and Amerindian. The varying practices and techniques of log construction are described in detail, and the book includes an extensive and thorough glossary of log construction terms, and a lengthy bibliography.

Kaiser, Harvey H. "The Adirondack Rustic Style." *The Old-House Journal.* Vol. XI, No. 1 (January-February 1983), pp. 1, 30-33.

This article is a brief survey of the Adirondack Rustic style that evolved from 1870-1930 in that region of New York State according to the author of "Great Camps of the Adirondacks." This style used native materials and designs in the context of the natural environment, and is characterized primarily by the use of logs and indigenous rough stone, and was especially popular as a building style for "rustic" summer vacation "camps" of the wealthy.

. *Great Camps of the Adirondacks.* Boston: David R. Godine Publisher, Inc., 1982.

This is a comprehensive study of the "rustic style" log construction of the mid-1800s to mid-1900s in the Adirondack region. Specific examples with illustrations are presented on all aspects of this style of building, including interiors and furnishings. It includes a large bibliography.

. "Rustic Interiors of the Adirondack Camps." *The Old-House Journal.* Vol. XVIII, No. 1 (January-February 1990), pp. 45-48.

This short article focuses on the interior furnishings and decor of the "Great Camps of the Adirondacks." Like the buildings themselves, the furniture and interior detailing, including stair rails, rafters and fireplaces, are created of natural, rough materials—usually massive native stone boulders and rough timber logs, and bent hickory and birchbark furniture.

Lavender, Linda. *Dog Trots and Mud Cats: The Texas Log House.* Denton, TX: North Texas State University, 1979.

This catalog for a traveling exhibit offers a general history of log construction, illustrated with Texas examples. It explores social, economic and environmental relationships of historical and modern log architecture, and includes a good bibliography.

Phleps, Hermann. *The Craft of Log Building.* Ottawa, Ontario: Lee Valley Tools, Ltd., 1982.

This book illustrates the qualities unique to log construction, with an emphasis on German regional characteristics.

Rempel, John 1. *Building with Wood and other Aspects of Nineteenth-Century Building in Central Canada.* Revised edition. Toronto: University of Toronto Press, 1980.

This book includes a lengthy chapter on different types of 18th and 19th century log construction in this part of Canada. It traces their ethnic origins and stylistic similarities and compares them with historic log structures in the U.S. Notching styles, chimney construction, room layout, and building dimensions are discussed in this interesting regional and historical study.

Roberts, Warren E. *Log Buildings of Southern Indiana.* Bloomington, IN: Trickster Press, 1984.

Roberts has written an in-depth study on 470 log structures in southern Indiana, explaining why the structures were built and their probable cultural sources. The book includes a good bibliography, photographs, maps and illustrations.

Willis, Stanley. "Log Houses in Southwest Virginia: Tools Used in Their Construction." *Virginia Cavalcade. Vol.* 21, No. 4 (Spring 1972), pp. 36-47.

The author describes the various log house types, the types of wood most commonly used for them, construction methods, and cornering techniques, with an emphasis on, and illustrations of, the tools used to create these log buildings.

Wilson, Mary. *Log Cabin Studies.* Cultural Resources Report No. 9. Ogden, UT: United States Department of Agriculture, Forest Service, 1984.

This three-part study examines a specific log structure typology occurring in the Rocky Mountains, its possible origins, and construction technology. It includes an extensive, partially annotated, bibliography.

Log Structures in the National Parks

Good, Albert H. *Park and Recreation Structures.* Reprint of the 1938 National Park Service Manual. Boulder, CO: Graybooks, 1990.

This manual was originally prepared in 1938 as a guide for National Park Service architects for designing "rustic" structures in the parks that would be sympathetic and subordinate to the natural landscape and environment of the parks. It is profusely illustrated with photographs, drawings, plans and elevations for such structures as cabins, lodges, service buildings, picnic shelters, bathhouses and boathouses, as well as rustic signage, furniture and bridges constructed of logs and rough local stones and boulders. This reprint also includes a section on preservation, and it should be useful to anyone interested in restoring and preserving the many rustic structures of this era that are so prevalent in American parks.

Harrison, Laura Soulliere. *Architecture in the Parks: National Historic Landmark Theme Study.* Washington, D.C.: National Park Service, U.S. Department of the Interior, 1986.

This is a compilation of National Register nomination forms with photographs of rustic log structures built in the National Park System. It contains a historical introduction, and recommendations concerning each group of the proposed landmark structures.

Madden, Robert R., and T. Russell Jones. *Mountain Home: The Walker Family Farmstead. Great Smokey Mountains National Park.* Washington, D.C.: National Park Service, U.S. Department of the Interior, 1977.

This case study chronicles the history of the Walker family and their log home located in the Great Smokey Mountains National Park. The Walker family homesite is one of the few remaining original, 19th century farmsteads in the park, and consists of a log house, a spring house and corncrib. This monograph which is a combined sociological and architectural study of the National Park Service site is illustrated with photographs and measured architectural drawings by the authors, documenting the family and the buildings.

National Park Service. *Inventory of Significant Structures: Architectural and Character Guidelines: Sequoia and Kings Canyon National Parks.* NPS D-133. Region No. 8: U.S. Government Printing Office, September 1989.

Architectural Character Guidelines: Sequoia and Kings Canyon National Parks. NPS D-131. Region No. 8: U.S. Printing Office, July 1989.

The first of this two-volume set provides a capsule history of building design in these two parks; the second volume provides guidelines for new construction that will be harmonious with the natural park surroundings. The significance of nature predominates over the rustic-style park architecture which was designed to be subordinate to the natural setting, and the buildings are thus constructed of battered stone and log, or rough wood siding, with wood shingle roofs. This study analyzes and reviews the existing structures in these parks in light of their relationship with the natural park environment in order to provide guidelines for future park development and construction.

Tweed, William C., Laura E. Soulliere, and Henry G. Law. *National Park Service Rustic Architecture: 1916-1942.* San Francisco, CA: Division of Cultural Resource Management, Western Regional Office, National Park Service, February 1977.

The initial intent of this study was to survey historically and architecturally significant structures located within the Western Region of the National Park System, but it was expanded to also include some park structures on the east coast. The goal was to develop a history of the National Park Service "rustic" architecture movement, including influences on its development and evolution, and its relationship to the history of the national parks and to

American architectural history in general. "Rustic" is defined here as the style of architecture which has been most widely used in our forested national parks and other wilderness parks.

Preservation, Restoration and Repair of Historic Log Structures

Caron, Peter. "Jacking Techniques for Log Buildings." *Association for Preservation Technology Bulletin. Vol. XX,* No. 4 (1988), pp. 42-54.

Caron discusses techniques used to brace and jack up log structures in order to replace structural members. The article is well illustrated with photographs and drawings.

Cravens, DuVal. "Soil Fumigants: Advances in Protecting Wood From Decay." *Technology ~ Conservation. Vol.* 2, No. 4 (Winter 1977), pp. 22-26.

In this article, Cravens reviews methods of detecting decay in wood, and provides a table comparing various wood preservatives. Also included is an overview of the research conducted by Robert Graham (see below). This is a good introduction and overview into the topic of wood preservation.

Goodall, Harrison. "Log Crown Repair and Selective Replacement Using Epoxy and Fiberglass Reinforcing Rebars: Lamar Barn, Yellowstone National Park, Wyoming." *Preservation Tech Notes.* Exterior Woodwork Number 3. Washington, D.C.: Preservation Assistance Division, National Park Service, U.S. Department of the Interior, September 1989.

To repair the deteriorated sections of the log crowns of the rustic-style Lamar Barn constructed in Yellowstone National Park in 1936, the author developed a technique of attaching new wood crowns to the existing logs using fiberglass reinforcing rebars bedded in epoxy bonded to the wood. This case study includes a detailed description, including project costs, of how the restoration work was carried out in 1986, and Renee Friedman. *Log Structures: Preservation and Problem-Solving.* Nashville, TN: American Association for State and Local History, 1980.

Profusely illustrated with drawings and photographs, this book provides guidance in planning restoration projects involving log structures. It begins with a section on identifying problems including wood decay caused by moisture and insect infestation, then suggests how to proceed with research and discusses various preservation techniques which may be required in a restoration project, including stabilization, repair and replacement using epoxies and preservatives, and chinking and daubing materials and methods.

Graham, Robert D. "The Role of Fumigants in Log Preservation." *Association for Preservation Technology Bulletin. Vol.* XV, No. 1(1983), pp. 20-21.

This two-page article briefly argues in favor of the use of fumigants, even when using epoxies, since "removing all the rotten wood [when preparing to reinforce with epoxy]... does not remove all the fungi that cause decay." Graham includes a cautionary note about the toxicity of fungicides, an essential subject to consider.

Haegler, Jeff. "Reconstructing a Log House." *Fine Homebuilding. No.* 32 (April-May 1986), pp. 72-75.

Dismantling and relocating a historic log building is never a recommended treatment, but it may be acceptable in some instances when there is no other alternative for saving the building. This article describes the reconstruction of an 1865 log building in Wisconsin, and

includes photographs and drawings, and relatively good technical guidance despite the fact that the historic clapboarding covering the exterior was inappropriately removed and not replaced on the building after reconstruction.

Hutslar, Donald A. *Log Cabin Restoration: Guidelines for the Historical Society.* Technical Leaflet 74. Nashville, TN: American Association for State and Local History, 1974.

The author provides basic advice on what to consider before initiating restoration of a log building. Although differences between a "log cabin" and a "log house" are explained, most of the guidance is directed toward the more rustic "log cabin," and the frequently encountered probability of having to deal with restoring or preserving a log structure that features significant original, or later, interior or exterior siding or plaster finishes is given only minimal attention.

McRaven, Charles. "Chinking Log Walls." *Fine Homebuilding.* No. 26 (April-May 1985), pp. 48-51.

The article begins with the explanation that chinking is especially vital to certain, notably square-hewn, types of log structures, and proceeds in some detail to describe various chinking methods and also includes several different chinking mixes.

Oppel, Mary Cronan. "A Guide to Rehabilitating Log Houses," *The Old-House Journal.* Vol. VIII, No. 8 (August 1980), pp. 85, 100-103.

The author provides good general guidance on what to consider before undertaking a rehabilitation of a log house. Basic log house types, types of wood commonly used for building, chinking and exterior sheathing, and construction methods are discussed.

Park, Sharon C., AIA. *Preservation Briefs 19: The Repair and Replacement of Historic Wooden Shingle Roofs.* Washington, D.C.: Preservation Assistance Division, National Park Service, U.S. Department of the Interior, 1989.

Most log structures were originally covered with wood shingle roofs, and this publication will be useful to anyone restoring a historic log building that has, or had, a wood shingle roof. The author provides information on historical types of shingles, the various kinds of wood shingles available today, and how they are made, and what is, and what is not appropriate to use on a historic building.

Phillips, Morgan W., and Dr. Judith E. Selwyn. *Epoxies for Wood Repairs in Historic Buildings.* Washington, D.C.: Technical Preservation Services Division, Office of Archeology and Historic Preservation, Heritage Conservation and Recreation Service, U.S. Department of the Interior, 1978.

This is a useful, very technical book that presents research findings on the use of epoxies to preserve deteriorated features. In Part I, Phillips discusses the use of low-viscosity epoxy consolidants that may be soaked into rotted wood in order to restore its solidity. The use of epoxy pastes for patching holes and cracks is also covered. Part II, by Selwyn, presents case studies that outline the criteria for application of epoxies, and provides supporting details on methods of application.

Rockhill, Dan. "Structural Restoration with Epoxy Resins." *Association for Preservation Technology Bulletin.* Vol. XX, No. 3 (1988), pp. 29-34.

This is a case study on the application of epoxy to wood roofing members on the Lane University (Museum) building in Lecompton, Kansas. The wood epoxy reinforcement system (W.E.R.) was used; applications should be similar for log structures.

Rowell, R.M., J.M. Black, L.R. Gjovik, and W.C. Feist. *Protecting Log Cabins from Decay*. USDA Forest Service, Forest Products Laboratory, General Technical Report, FPL-11. Madison, WI: Forest Products Laboratory, Forest Service, U.S. Department of Agriculture, 1977.

This report addresses the problem of how to protect existing log structures, as well as how to treat new logs before building to prevent decay. Causes of stain and decay are discussed, and also basic building techniques that will minimize decay. Included is information on selection and handling of logs, preservative treatments, construction details and log construction techniques, descriptions of preservative types, and a short bibliography on insect and decay control in wood.

St. George, R.A. *Protecting Log Cabins, Rustic Work and Unseasoned Wood from Injurious Insects in the Eastern United States.* Farmer's Bulletin No. 2104, United States Department of Agriculture. Washington, D.C.: General Printing Office, 1962 (Rev. 1970).

This booklet contains information on prevention and control of insect damage, but it may be more useful in identification of the insects causing damage to wood structures. Good illustrations of the insects and the damage they cause.

Staehli, Alfred M. "The Preservation of Logs and Heavy Timbers in Historic Buildings by Using Volatile Chemicals: A Preliminary Report." *Association for Preservation Technology Bulletin.* Vol. XV, No. 1 (1983), pp. 22-26.

Staehli extends the argument introduced by Robert D. Graham (above) for using fungicides in conjunction with various epoxy-based wood restoration and reconstruction procedures. Before using the preservative fungicides mentioned in the article, the author recommends additional research into current legislation and safety issues regarding the use of these chemicals.

Stumes, Paul. "The Application of Epoxy Resins for the Restoration of Historic Structures." *Association for Preservation Technology Bulletin.* Vol. Ill, No. 1 (1971), pp. 59-63.

The author chronicles the results of his research investigations into the use of synthetic resins for the strengthening of wood. The perfected system itself is described thoroughly in the "W.E.R.—System Manual" published in 1979 (see below).

. "Testing the Efficiency of Wood Epoxy Reinforcement Systems." Asso*ciation for Preservation Technology Bulletin.* Vol. VII, No. 3 (1975), pp. 2-35.

Stumes summarizes the results of early W.E.R. systems tests. The tests helped pinpoint weaknesses of the system and established parameters for the design of a reinforcement system. The article provides technical background, but it may be of limited use in practical applications.

. *W.E.R.—System Manual. Structural Rehabilitation of Deteriorated Timber.* Ottawa, Ontario: Association for Preservation Technology, 1979.

The W.E.R. system uses a specific chemical system, in this case Sika, a Canadian system, developed by the professional staff of the Engineering and Architectural Branch of the Department of Indian Affairs and Northern Development in Canada. The W.E.R. system is not a trade name but simply an abbreviation for a preservative treatment for the restoration of the structural strength of wood with reinforcement such as glass fiber, aluminum or other materials embedded in epoxy resin.

This bibliography was prepared by Anne Grimmer, architectural historian, with the assistance of Paul K. Williams and Sherda K. Williams, summer interns, Preservation Assistance Division, National Park Service. The preservation and repair of historic log structures will be the topic of a future Preservation Brief. The author may be reached at 202/343-9567, and welcomes any information on the subject, or suggestions regarding additional reference materials that should be consulted in the preparation of the Brief.

National American Indian Heritage Month

President Bush has declared the month of November as National American Indian Heritage Month, thanks to the joint efforts of Senator Inouye and Congressman Faleomavaega.

"As we near the 500th anniversary of the 'discovery' of Columbus by American Indians, the time has come for American Indians, the original peoples of this land, to be honored and recognized by our country with the designation of a National American Indian Heritage Month," states a September 28 press release of the Senate Select Committee.

"This will also be a time to give thanks for our young generation of Indians as they are rapidly excelling and achieving in areas such as education, law, arts, military, tribal leadership, entrepreneurship, etc. They are tomorrow's leaders and will soon reshape Indian life across the country. We cannot let these future leaders leave their heritage behind. It is our responsibility to teach them what they can pass on to future generations as our grandparents have taught us. 'They are young once, but Indian forever'."

The Nation, educators, Indian organizations and communities, and Federal agencies that regularly schedule annual cultural events, are called upon "to participate in a full month of celebration and awareness of the contributions and achievements of the past and present first Americans during the month of November. There exists a growing need to help coordinate a united effort between schools, Native American communities and organizations, and the society as a whole in this special awareness month."

ARCHEOLOGICAL ASSISTANCE PROGRAM

INFORMATION REPORT

Public Archeological Collection Saved from Auction Block

This article was edited by Frank P. McManamon based on material submitted by Ruth Brinker and Tom Shafer. It first appeared in the Federal Archeology REPORT, Volume 3, No. 3, September 1990.

Thanks to alertness, quick action, interagency cooperation, and good detective work government archeologists in south central Indiana have rescued a large and valuable cache of artifacts and documents from the auction block. Your agency's artifacts might be among those recovered, or those still missing.

Ruth Brinker, forest archeologist for the Wayne-Hoosier National Forest explains: "Last May, we were contacted by archeologists Dr. Patrick and Cheryl Ann Munson of Bloomington, IN, regarding the discovery of a large collection of artifacts, maps, reports, and other materials that was about to be auctioned. That telephone call set into motion a major effort to reclaim hundreds of archeological items belonging to various state and Federal agencies."

How the artifacts and documents reached the auctioneer's hands is an interesting, but unfortunate, tale. What is even more distressing is that the incident may be only a single instance of a more widespread problem, the inadequate curation of archeological collections and documents.

Sometime this past spring, the manager of a public storage facility in Bloomington took possession of the contents of a storage unit when the owner of the stored goods, Resource Analysts, Inc. (RAI), failed to make the rent payments. He then sold the items—boxes of field notes, maps, photographs, reports, and artifacts—to a local auctioneer.

Fortunately, the auctioneer didn't realize the nature of the collection. He contacted a geologist from the U.S. Geological Survey to assess the value of his "rocks." The geologist recognized immediately the significance of the materials and notified the State Historic Preservation Officer (SHPO). He also called the Munsons, who in turn, contacted Ruth Brinker. Brinker enlisted the aid of Forest Service (FS) colleagues and, with the help of cooperating agencies, especially Tom Shafer, historic preservation officer for the Army's Fort Benjamin Harrison (Indiana), began the effort to ensure the safe return of the properties to the public agencies responsible for them.

Brinker and her team discovered that RAI had been a private consulting firm owned by Dr. John T. Dorwin. Dorwin had been the manager of the Bloomington branch office of Soil Systems, Inc. (SSI) until 1980 when he purchased the business and changed its name to Resource Analysts, Inc. Both firms had done archeological projects under contract to various state and Federal agencies. Most of the artifacts and other materials recovered were from those contract projects.

The SHPO personnel contacted Dorwin to discuss the return of the archeological materials. They also contacted the auctioneer to request an inventory of the items in his possession. SHPO staff members viewed the collection on May 7. The auctioneer refused to relinquish control, but agreed to permit an inventory of the collection under the condition that the state move the cardboard boxes and map tubes from his auction barn to an old dirt-floored storage shed on his property.

During the subsequent inventory, items were sorted by ownership or jurisdiction. Seventeen agencies were identified, with projects in 12 states. Most of the items were from FS, U.S. Army Corps of Engineers (COE), and State of Indiana projects.

Armed with this information, the negotiations between the FS, COE, and National Park Service, and the auctioneer's attorney began in earnest. Finally, on May 15, the auctioneer agreed to relinquish the materials.

FS and COE archeologists worked out the logistics of transporting and sheltering the collection. Through Tom Shafer, Fort Benjamin Harrison provided an enclosed truck for moving the materials as well as a building for their temporary storage. FS employees loaded and transported 4 map file cases, 27 map boxes and tubes, 54 boxes of files, 74 boxes of artifacts, 7 boxes of reports, and a few unboxed items.

While at the COE facility, the materials were dried and sorted into project collections. This time, 147 separate projects were identified. The State of Indiana, Fort Benjamin Harrison, and the COE retrieved their collections while the FS assumed responsibility for the remaining items. These were transported to the Bedford, IN, headquarters of the Wayne-Hoosier National Forest, where Cheryl Ann Munson and volunteer Holly Cook took on the slow process of rebagging, reboxing, and relabeling items, contacting the responsible agencies, and arranging for the return of the collections.

While the items recovered represent a large volume of archeological data, it is possible that not all SSI/ RAI project materials were recovered by this effort. Since the investigation began, Dorwin has twice returned additional materials. Several project documents were recovered with no accompanying artifacts. Also, there appear to be large gaps in the project numbering system. It is possible that the materials from these unknown projects are properly curated somewhere, but perhaps not.

Improving curation of public archeological collections is included in Secretary of the Interior Manuel Lujan's National Strategy for Federal Archeology and it is part of a new initiative for the FS. In keeping with this directive, all agencies may wish to review their files for projects performed by SSIIRAI and seek out the materials resulting from these projects. If SSI/RAI project materials are missing, please notify Ruth Brinker, Forest Archeologist, Wayne National Forest, 811 Constitution Ave., Bedford, IN 47421; telephone (812) 275-5987.

This situation in the Midwest underscores the need for greater attention to the proper curation of public archeological collections, both the excavated remains and associated objects. The Archaeological Resource Protection Act (P.L. 96-95 as amended; 16 USC 470 et seq.) requires proper curation of collections made as part of Federal agencies' compliance with this statute. The Department of the Interior has issued final regulations (36 CFR 79) that provide guidance on the curation of archeological collections and associated documents (see next article).

Frank McManamon is chief, Archeological Assistance Division, National Park Service. Ruth Brinker is a forest archeologist with the Wayne National Forest. Tom Shafer is a historic preservation officer for the Army's Fort Benjamin Harrison in Indiana.

Computer News

Update on Automation Publications

Betsy Chittenden

The latest information management activity in the NPS is the development of the Cultural Resources Information Management Report Series. The series is part of the Service's continuing commitment to encourage and improve the use of information management systems for historic preservation activities. The series includes reports on computer use in state agencies, geographic information systems, developments in cultural resource data standards, and information management projects at state and national levels.

Three reports have been completed and have been published. Two are the results of studies of automation in state offices, reported on in the last issue of *CRM Bulletin* (Vol. 13, No.4). The first report, *Computer Use in State Historic Preservation Offices, is* the culmination of several years of meetings, discussion and research. *Computer Use* provides a directory-style overview of the state of automated cultural resources management in each of the State Historic Preservation Offices. The report is indexed for quick answers to questions like "who else is using dBase?" and "what states have automated information on historic archeological sites?" Information on whom to contact, and future plans for automation in each state is included. An appendix includes samples of automated reports, system descriptions, and other additional information submitted by the SHPOs and NCSHPO. The second report, *Geographic Information Systems Use in State Government Agencies, is* a survey of the principal GIS operations in each state government and a brief summary of the nature of the system, contacts, and state GIS coordination efforts. *Boundary Analysis of the Dune Shacks of Peaked Hill Bars National Register Historic District is* a report on a project by the Interagency Resources Division's Cultural Resources Geographic Information Systems Applications Center to use GIS technology to determine the boundary of a National Register Historic District in Cape Cod.

Copies of the three reports, as well as more information about the series, are available from the Information Management Coordinator, Interagency Resources Division, telephone (FTS/202) 343-9500. fax (FTS/202) 343-9511.

Regulations for the Preservation and Management of Federal Archeological Collections

On September 12, 1990, the National Park Service issued a new regulation entitled "Curation of Federally-owned and Administered Archeological Collections." The final regulation, which became effective on October 12, 1990, appears in the Code of Federal Regulations as Part 79 of Title 36.

The new regulation will foster improvements in the way Federal agencies care for collections of prehistoric and historic archeological remains, and associated records, that are excavated or removed in conjunction with their projects and programs. Those collections often are the only remaining evidence of places and events significant to our Nation's prehistory and history because the actual archeological or historic site has been destroyed.

The regulation (1) sets forth the responsibilities of Federal agencies to manage and preserve collections; (2) identifies methods for Federal agencies to use to secure curatorial services; (3) identifies methods for Federal agencies to fund curatorial services; (4) sets forth terms and conditions for Federal agencies to include in contracts, memoranda, agreements and other written instruments with repositories for curatorial services; (5) establishes standards for Federal agencies to use to determine when a repository has the capability to provide long-term curatorial services; (6) sets forth guidelines for using collections; and (7) sets forth procedures and guidelines for conducting periodic inspections and inventories of collections.

On September 12, 1990, the National Park Service also issued for public review and comment a proposed regulation that would amend 36 CFR Part 79 in two respects. One amendment would establish procedures for Federal agencies to provide information on the disposition of collections and copies of certain records to pertinent state officials and other appropriate parties. The other amendment would establish procedures for Federal agencies to discard, under certain circumstances, particular material remains that may be in collections that are subject to Part 79.

Copies of the final regulation and the proposed amendments are available at no charge from the Departmental Consulting Archeologist, National Park Service, Department of the Interior, P.O. Box 37127, Washington, DC 20013-7127. The deadline for submitting comments on the proposed amendments is December 11, 1990.

For further information, contact Francis P. McManamon at 202/ 343-4101. For government FTS lines, do not use the area code.

SHOT: The Society for the History of Technology

Robert C. Post

The Society for the History of Technology (SHOT) was founded in 1958. The founders included Melvin Kranzberg, John Rae, Carl Condit, and Thomas Hughes, all historians who had previously been active in the American Society of Engineering Education. The first issue of SHOT's journal, *Technology and Culture*, appeared in 1959 under the editorship of Kranzberg, who remained the editor-in-chief until 1981. T&C is now published quarterly by the University of Chicago Press, approximately 1,000 pages annually. The article selection process is by peer review.

SHOT's objectives, as reiterated in every issue of *T&C*, are "to encourage the study of the development of technology and its relations with society and culture." Although most of the active members are historians, there are social historians, political historians, economic historians, business historians, and labor historians in addition to self-defined historians of technology. The society is interdisciplinary and the active membership includes anthropologists, sociologists, economists, engineers, and museum curators who share the historians' concern with the relations of technology to public policy, economics, labor, business, the environment, the arts, and science.

Initially there were close ties with the history of science, but these have become less significant as successive generations of scholars have come to the fore who feel stronger kinship with such fields as labor history and environmental history, and who believe that the history of technology provides the crucial perspective on history in general. Methodologically, the "internalist" approach, focused on the design of technological artifacts, has largely been superseded by a contextualism which, in John Staudenmaier's words, "attempts to integrate technology's design characteristics with the complexities of its historical ambiance." Most historians of technology are now convinced, as Staudenmaier puts it, that "technical designs cannot be meaningfully interpreted in abstraction from the human fabric of their contexts."

SHOT meetings, normally scheduled for October, attract 250-300 registrants. Recent meetings have been held at the Hagley Museum, the California State Railroad Museum, and Case Western Reserve University. The 1991 meeting will be at the University of Wisconsin in Madison, and the 1992 meeting at Uppsala University in Sweden—SHOT is vitally concerned with maintaining its stance as an international society. Meetings usually run three days, with two or three dozen program sessions as well as a banquet and awards presentation.

The society sponsors or administers seven prizes: The Leonardo da Vinci Medal, presented to an individual who has made outstanding contributions to the history of technology through publication, teaching, and other activities; The Dexter Prize, awarded annually for an outstanding book in the history of technology; The Usher Prize, awarded annually to the author of the best scholarly article published under SHOT's auspices; The Robinson Prize, awarded annually for the best paper presented at a SHOT meeting by a young scholar; The Levinson Prize, awarded annually for an original essay in the history of technology that is the author's first work intended for publication; The IEEE Prize, awarded annually for the best article in electrical history; and The Dibner Award, recognizing excellence in museum exhibitry.

The annual meetings also provide an opportunity to convene the membership of several special-interest groups within the larger society: Women in Technological History (WITH); Technology Studies and Education (TS&E); Technology Museums Special Interest Group (TEMSIG); electrical technology (Jovians); chemical technology (Pelicans); aerospace technology (Albatrosses); communications technology (Mercurians); military technology; building technology and civil engineering; and computer science and technology.

SHOT currently has 1,800 individuals and 1,000 institutions on its membership rolls. Individual membership is $27.50 per year, institutional is $54.00. In addition, there are student memberships ($19.00) and emeritus memberships ($23.00). Membership in the society includes a subscription to SHOT's quarterly newsletter as well as *T&C.* To join, send check, purchase order, or complete credit card information (Visa and Mastercard payment is accepted) to the University of Chicago Press, Journals Division, Box 37005, Chicago, IL 60637.

General inquiries about SHOT should be directed to the society's secretary, Bruce Seely, Department of Social Sciences, Michigan Technological University, Houghton, MI 49931. Seely also edits the newsletter. The editor of *Technology and Culture is* Robert C. Post, the managing editor is Joan Mentzer, the book review editor is Jeffrey Stine, the exhibit review editor is Helena Wright. All of them may be contacted at 5030 National Museum of American History, Smithsonian Institution, Washington, DC 20560.

The history of the first two decades of the SHOT and *T&C* has been elaborated in *Technology's Storytellers: Reweaving the Human Fabric,* by John M. Staudenmaier, S.J. (SHOT and the MIT Press, 1985 and 1989); in Staudenmaier's "Recent Trends in the History of Technology," *American Historical Review* 95 (June 1990); and, briefly, in "Missionary: An Interview With Melvin Kranzberg," by Robert C. Post, *American Heritage of Invention ~ Technology 4* (Winter 1989).

Dogwatch

Standards and Guidelines for Historic Vessel Preservation Projects

James P. Delgado

"Dogwatch" is the term traditionally used for the two-hour watch during which half the ship's crew eats supper and swaps stories.

The preservation, rehabilitation, and restoration of historic structures greatly benefited from the preparation of the *Secretary of the Interior's Standards for Historic Preservation Projects* by the National Park Service. A significant need existed, however, for separate standards and guidelines for a unique class of structures— historic vessels. The need for standards for maritime preservation, identified by a National Trust for Historic Preservation maritime heritage task force, was again raised at a workshop/conference on maritime preservation held at the National Maritime Museum, San Francisco (now San Francisco Maritime National Historical Park) by the Association for Preservation Technology (APT) and the National Park Service in September 1985. Throughout the workshop, considerable discussion after each session focused on defining the issues and developing a policy statement concerning maritime preservation. An ad hoc committee formed by Peter Neill, David Brink, Walter Rybka, Steve Hyman, Randall Biallas, and Gary Hume worked behind the scenes to draft and present suggested standards for the management of historic vessels. These standards were discussed and modified in open forum discussion with the workshop participants, and, at the close of the workshop, a resolution supporting the suggested standards was passed by voice vote.

The creation of the National Maritime Initiative in 1987 provided the first opportunity for the development of formal standards by the National Park Service to supplement the existing Secretary's Standards for Historic Preservation. The manager of the National Maritime Museum, Glennie Wall, brought in Michael Naab, former Director of the Columbia River Maritime Museum, to draft the document. Working with a committee of five maritime preservation professionals representing a wide range of organizations and experience across the country, Naab drafted an extensive document that followed the format of the Secretary's Standards for Historic Preservation. Circulated for review throughout the United States, and presented at a workshop at the National Trust's 1987 National Preservation Conference, the document was revised and published for review in the *Federal Register* in 1989. After this second phase of wide public review, in which copies of the document were mailed to every historic vessel owner, manager, and operator in the United States, the final product was prepared and published in 1990.

The new *Secretary of the Interior's Standards for Historic Vessel Preservation Projects is* now available and meets a long-standing need in maritime preservation for uniform standards for historic vessel projects. Guidelines for eight historic preservation treatments, and definitions for key maritime preservation terms form a major part of the document. The need for such a document was demonstrated throughout the five-year period it was prepared by requests for draft versions of the standards for use in projects—the Presidential yacht *Potomac* in Oakland, California and the river steamer *Nenana* in Fairbanks, Alaska were two vessels that employed the draft standards in their restoration work. The completed standards and guidelines are now being used in their first full-scale application by South Street Seaport, New York, in the restoration of the National Historic Landmark schooner *Lettie G. Howard.* South Street staff, and New York Office of Historic Preservation officials, working together on the restoration, were also key participants in the development of the standards.

Copies of the historic vessel standards can be obtained, free of charge, by writing the National Maritime Initiative, National Park Service, P.O. Box 37127, Washington, D.C. 20013-7127.