CRM

VOLUME 15 • NO. 5

1 9 9 2

This Issue

Implementation of the **Native American Graves Protection and Repatriation Act** is underway and Departmental Consulting Archeologist Frank McManamon describes key aspects of this law.

pg. 9

Reconstruction is being debated in Canada as well as in the U.S. As a special feature, Canadian Parks Service specialists Shannon Ricketts and George Bennett offer provocative reading on this subject.

pg. 13

New technology used for **archeological research** is yielding valuable information as illustrated by SC state parks archeologist Donnie Barker and SCS soil specialist Jim Doolittle.

pg. 25

Cultural Resources Management
Information for
Parks, Federal Agencies,
Indian Tribes, States,
Local Governments and the
Private Sector

U.S. Department of the Interior
National Park Service
Cultural Resources

America's Labor History
The Lowell Story

Marty Blatt

In thinking about the National Park Service (NPS), many people picture dramatic natural sites like Yellowstone, the Grand Canyon, or Yosemite. In fact, cultural areas in the NPS, archeological as well as historic, now account for about two thirds of the total parks within the national park system.

One important area, labor history, however, is not well represented in the current range of sites managed by the NPS. Perhaps the most significant labor history location in the national park system is Lowell National Historical Park, MA.

(continued on page 3)

Boott Mill No. 6 and the Counting House before restoration.

Boott Mill No. 6 and the Counting House after restoration. Photo by Gretchen Sanders Joy, Lowell Historic Preservation Commission.

CRM

VOLUME 15 • NO. 5

Published by the National Park Service to promote and maintain high standards for preserving and managing cultural resources.

Director
James M. Ridenour

Associate Director
Jerry L. Rogers

Editor
Ronald M. Greenberg

Production Manager
Karlota M. Koester

Advisors

Joan Bacharach
Museum Registrar, NPS

Randall J. Biallas
Historical Architect, NPS

John A. Burns
Architect, NPS

Harry A. Butowsky
Historian, NPS

Pratt Cassity
Acting Executive Director, National Alliance of Preservation Commissions

Muriel Crespi
Cultural Anthropologist, NPS

Craig W. Davis
Archeologist, NPS

Mark R. Edwards
Deputy State Historic Preservation Officer, Maryland

John Hnedak
Architectural Historian, NPS

H. Ward Jandl
Architectural Historian, NPS

Roger E. Kelly
Archeologist, NPS

Antoinette J. Lee
Historian, NPS

John Poppeliers
International Liaison Officer for Cultural Resources, NPS

Ruthann Knudson
Archeologist, NPS

Contributing Editors

Betsy Chittenden
Information Management Coordinator, NPS

Bruce Craig
Cultural Resources Coordinator National Parks and Conservation Association

Consultants

Mary V. Maruca
Editor, NPS Courier

Michael G. Schene
Historian, NPS

Kay D. Weeks
Technical Writer-Editor, NPS

Contents

Features

America's Labor History—
The Lowell Story 1
Marty Blatt
The Lowell Conference 3

A New Roof for Arlington House 6
Sharon C. Park

Managing Repatriation:
Implementing the Native American Graves Protection and Repatriation Act 9
Francis P. McManamon

Raising the Dead—Reconstruction Within the Canadian Parks Service 13
Shannon Ricketts

Evoking the Past or Provoking the Gods? Some Observations on Period Reconstructions 21
Gordon Bennett

Ground-penetrating Radar—
An Archeological Tool 25
Donnie Barker
Jim Doolittle

Historic Theaters—A Vital Component to Downtown Development 29
Victoria Hardy
Catherine L. Creager

Fort Sumter—Preserving its Crumbling Walls 32
James N. Ferguson

Interpretation and the Historical Archeology of the Civil War 34
Dana Holland

Departments

Washington Report 35
Capitol Contact
Bruce Craig
Interior Museum Property Program Update
Ann Hitchcock

Preservation Resources 36
Thomas Jefferson's Poplar Forest Restoration Field School
Travis C. McDonald, Jr.

Local News 36
Making Property Owners Aware of Historic District Status
Stephen A. Morris

Viewpoint 37
Interpreting Slavery—A Response
Kay D. Weeks

Bulletin Board 38

The Lowell Story

(continued from page 1)

Lowell was America's first large-scale planned industrial community. After its incorporation in 1826, Lowell was celebrated for its innovative textile technology, its unique workforce of young New England farm women, and its closely supervised system of corporate paternalism. The mills helped transform American life with the use of waterpower, the rise of the corporation, and the growth of an immigrant, urban working class.

The Lowell story is as much about change as about beginnings. Just as the city today reflects the deindustrialization happening across the northern states of the country, so its historical structures represent one of the greatest transitions in American social history. This was the shift from a rural society, where most people adapted their lives to natural cycles, to a society in which people responded to factory bells and the demands of a rigid, corporate schedule.

The city's textile industry declined from the 1920s into the 1950s. In the 1960s a group of Lowell citizens saw the need to revitalize the community, transform the educational system, and stimulate the local economy. Working with urban planners and historians, they laid

(continued on page 4)

The Lowell Conference

In late June of this year more than 50 labor historians, State Historic Preservation Officers, local community and historic preservation leaders and National Park Service representatives met at Lowell National Historical Park to discuss strategies for implementing P. L. 102-101, authorizing the Secretary of the Interior to prepare and transmit to Congress a National Historic Landmark theme study on American labor history (see *CRM*, Vol. 15, No. 2). The conference was held at the Boott Cotton Mills Museum at Lowell, which opened on June 20 as the centerpiece of the park.

During the three-day conference, several participants emphasized the necessity to include particular aspects of labor history such as women's work, agricultural work and the contributions of minority Americans. Professor Susan Porter Benson from the University of Missouri, for example, suggested that the labor theme study not just document the heroes of labor history or industrial workers but focus attention on clerical workers and domestic servants and other less obvious aspects of labor history. Professor Benson stated that scant attention has been given in the labor history literature to such events as the strike by African-American washerwomen in Atlanta in the 1880s.

Zaragosa Vargas, a University of California professor, stressed the need to recognize the contributions of Hispanic and Native American workers. Vargas suggested potential landmarks in Gallup, NM, the site of a coal workers strike in 1933; sites associated with the work of Chinese immigrant labor in the construction of the Central Pacific Railroad; and Hispanic needleworkers in Cincinnati.

The labor theme study act calls for the identification of key sites in labor history, "including the history of workers and their work, of organizing unions and strikes, of the impacts of industrial and technological change, and of the contributions of American labor to American history." The original bill was introduced into Congress by Representative Michael R. McNulty, from Troy, NY.

Mr. McNulty, and representatives from the labor community, preservationists and local government officials have worked together for years to preserve the Riverspark area near Albany, NY, as an Urban Cultural Park. Riverspark was organized in 1977 as a cooperative venture in urban planning under the auspices of the Hudson Mohawk Urban Cultural Park Commission, organized by the local governments of Troy Village, Waterford, Cohoes, Green Island, and Watervliet.

As part of the labor theme study, the National Park Service is now working with representatives from the Riverspark community in the identification and possible designation of significant labor sites including worker housing in Cohoes; the home of Kate Mullaney, one of the first female labor leaders in the United States; and the Druids Hall in Troy.

Late last year, Secretary of the Interior Manuel Lujan appointed three labor representatives to the NPS national advisory panel: Stuart Kaufman, professor of history and editor, *Samuel Gompers Papers*, University of Maryland, and editor, *Labor's Heritage*, and advisor for archival affairs, George Meany Center, AFL-CIO; Paul Cole, secretary-treasurer of the New York State AFL-CIO and vice president, American Federation of Teachers; and Duke Zeller, Duke Zeller Associates.

The labor history theme study represents an attempt by the National Park Service to tell the story of the history of the American worker in its full diversity. This is a history of common men and women, their labor, their lives and their cultures. While entrepreneurs and industrialists provided the capital and initial impetus that fueled the American Industrial Revolution, it was American workers, of many nationalities and religions, coming together that created the modern industrial society.

There are many ways that interested readers may become involved in the theme study project. You may suggest sites to be examined as well as indicate individuals and/or institutions that the NPS should contact for site suggestions as this work proceeds. The actual work of the theme study will be contracted out under a cooperative agreement. You may wish to respond to the Request for Proposals when it is issued or suggest appropriate institutions who would like to do so.

Hopefully, the labor history theme study will ultimately produce a considerable number of additional sites that focus on American labor history.

For further information please contact Harry Butowsky, National Park Service, History Division, P.O. Box 37127, Washington, DC 20013-7127; 202-343-8155.

The Lowell Story
(continued from page 3)

out a plan for redevelopment based on Lowell's industrial, architectural, and cultural heritage. Among their proposals was one for a historical park that would make parts of Lowell a virtual living museum. Political and business leaders offered support as pragmatic alliances marked this movement from the beginning. In 1978 the Federal Government created Lowell National Historical Park [LNHP] as well as the Lowell Historic Preservation Commission. The overall goals of the enabling legislation are "to preserve and interpret the nationally significant historical and cultural sites, structures and districts in Lowell, Massachusetts for the benefit and inspiration of present and future generations...." The *Preservation Plan* articulates the Commission's central theme, which is "to tell the human story of the Industrial Revolution in a 19th century setting by encouraging cultural expression in Lowell." The latter was created to assist the park's development, stimulate historic preservation of Lowell's downtown buildings and canals, and develop cultural programs related to the park's five interpretive themes, which encompass labor, capital, power, machines, and the industrial city.

LNHP includes a wide range of exhibits on the history of Lowell, waterpower, the New England farm women who comprised the earliest operatives, and immigrant workers. These exhibits are housed in rehabilitated mill structures and a boardinghouse, where the first operatives lived in paternalistic company housing. In the summers barges take visitors on tours on part of the 5.6 mile canal system which still today is used to generate power. The last weekend of July features the annual Lowell Folk Festival, a three-day celebration featuring traditional musicians and artists/craftspeople.

In June 1992, the park opened the Boott Cotton Mills Museum, the first major National Park Service museum on industrial history. The museum occupies the first two floors of historic Boott Mill No. 6, covering approximately 30,000 square feet of floor space. The museum is part of a multi-million dollar, private/public restoration of the Boott Mills complex, originally constructed in 1836; mill No. 6 dates to 1873.

Visitors to the Boott pass into the mill yard using the same bridge over the Eastern Canal that mill workers used for over 100 years. Tracing the footsteps of these mill workers, they enter the museum and encounter a partly recreated early-20th-century weave room, with 90 operating power looms. The looms are belt-driven, with their harnesses rocking and their shuttles flying, and some will actually produce cloth. The weave room provides a frame of reference for subsequent exhibits on the industrialization of America, the textile production process, the work experience, America's fascination with technology, the decline of the mills and a glimpse at Lowell today, and work in the 21st century.

Lowell Park has had a direct impact on labor history in a variety of areas, including archeology, oral history, folklore, research for exhibit development and interpretive tours, and local history. New contributions to labor history scholarship, both directly and indirectly, have resulted from park activities.

In 1985 the NPS signed a working agreement with the Center for Archeological Studies at Boston University. A significant part of the LNHP Archeological Survey Project has been the study of two complete Boott boardinghouse backlots. A wide range of artifacts and soil samples were analyzed. This research has aided in interpreting the quality of everyday life at the boardinghouses in the latter part of the 19th century, including food, consumer and leisure behavior, and sanitation and hygiene. The NPS has published three volumes of findings. Several other publications are in print or planned (also see *CRM*, Vol. 14, No. 6, supplement).

LNHP, working with historians and community researchers, produced a rich collection of oral history interviews with former mill workers. The park has made available copies of all tapes and transcripts to the Center for Lowell History, the special collections archive at the University of Massachusetts-Lowell, thus ensuring the broadest possible dissemination of these materials.

The Lowell Folklife Project was conducted in 1987-88 by the American Folklife Center of the Library of Congress. This study of the people, cultures, and history of Lowell produced field notes, audiocassette and reel-to-reel recordings, and thousands of black and white photographs and color slides. The project collection includes 196 hours of sound recordings, including oral history interviews, religious services, musical events, parades, and processions. Photographic images depict a Cambodian wedding,local painters and their works, churches, ethnic schools and festivals, cemeteries, and a pig roast. The original reel-to-reel recordings, negatives, and slides are at the Library of Congress, but any item can be ordered by consulting the collection catalog at the Center for Lowell History, which also has all recordings on audiocassette.

Boott Mill Boardinghouse No. 8, now the Morgan Cultural Center. Photo by Gretchen Sanders Joy.

Lowell Park rangers have conducted research in preparation for guided tour presentations. These research areas have included industrial accidents, child labor, labor organizing and strikes, and the 10-hour-day movement. Regarding the latter, one park ranger has organized articles on this subject for the years 1842-1848 from the *Lowell Advertiser, Lowell Courier, Lowell Offering,* and the *Voice of Industry.* Also, she has documented the running debate between Harriet Farley, editor of the *Offering,* and Sarah Bagley, President of the Lowell Female Labor Reform Association. Thus, rangers have used primary documents to establish special subject files.

For several years, former Lowell park historian Robert Weible organized the annual Lowell Conference on Industrial History. Four volumes of proceedings have now been published. Although no longer organized annually, the conference remains a part of park activities. In 1991, the conference, cosponsored with the New England Museum Association and the Lowell Office of Cultural Affairs, focused on public art, public history, and the city as museum. The next conference, "The Meaning of Slavery in the North," will take place June 3-5, 1993. The program will feature workshops for teachers, museum staff, and NPS interpreters; scholarly discussions; and public programs.

The presence of the park and the commission have stimulated a lively interest in local history. With grant funds available, a wide range of locally-produced histories, exhibits, and programs have been developed in which people explore and reflect upon their own ethnic and labor past. A brief sampling of these many varied programs includes: oral history interviews with recent southeast Asian immigrants, the production of a video documenting the 20 years of history of the Human Services Corporation, and publications and temporary exhibits on several ethnic groups in the city.

Clearly, LNHP has produced a good deal in the area of labor history.

For further information, the reader should consult the following:

Robert Weible, *The Continuing Revolution: A History of Lowell, Massachusetts.* The Lowell Historical Society.

Mary Blewett, *The Last Generation: Work and Life in the Textile Mills of Lowell, Massachusetts, 1910-1960.* The University of Massachusetts Press.

Thomas Dublin, principal author, *Lowell: The Story of an Industrial City.* Handbook No. 140. The National Park Service.

Marty Blatt is the Lowell National Historical Park supervisory historian and chief of Professional Services.

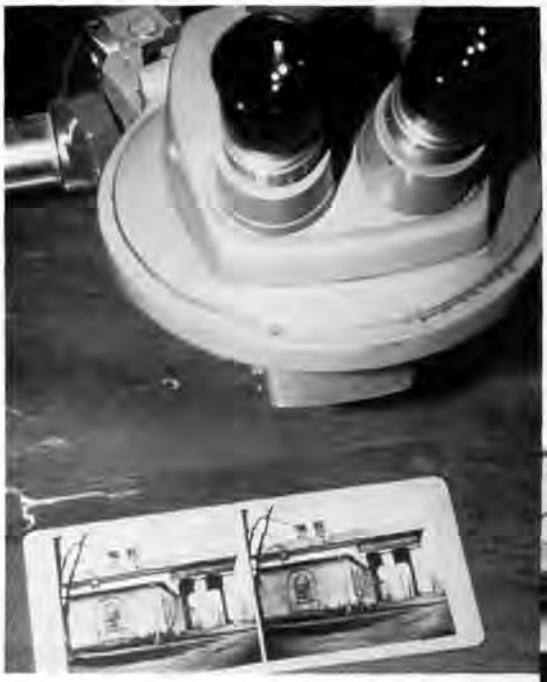
The performing arts stage at Boardinghouse Park. Photo by Gretchen Sanders Joy.

Market Mills. Photos by Gretchen Sanders Joy.

A New Roof for Arlington House

Sharon C. Park

The recent re-roofing of Arlington House blended traditional slate roofing techniques with modern installation practices. This National Historic Landmark was last roofed with slate in 1908 and, after numerous repairs, the roof was in need of replacement. During the summer of 1991, the Williamsport Preservation Training Center, National Park Service, with design assistance from the Preservation Assistance Division in Washington, DC, re-roofed the portico and main block of the house. Documentation of the appearance of the historic roof was provided in part by the NPS National Capital Region and the staff at the Arlington House.



1. Historic photos, such as this circa 1869 stereopair photograph, were used to document the configuration of the Arlington House roof during Robert E. Lee's time. A special microscope (left) affixed with a 35mm camera was used to produce magnified sections of the photographs (right) to provide the details for restoration.

The Greek Revival style building was constructed between 1802 and 1818 by George Washington Parke Custis (Martha Washington's grandson), and the design is attributed to George Hadfield, although original plans have never been found. Arlington House is closely associated with Robert E. Lee (son-in-law to Custis) who lived in the house immediately before the Civil War. The new roof was intended to match the appearance of the roof in place in 1861 during Robert E. Lee's last year at the property. As the roof had been re-slated and re-sheathed in 1878, much of the physical documentation of the earlier roof was missing. However, excellent Civil War era photographs of the building existed and established the earlier configurations and details. Through the use of photo-microscopy, detailed photographic blow-ups were produced which showed the number of slates, their size (24"x12"), and coursing. The photographs also showed cornice and guttering details, as well as a combed ridge and plank snow boards (photo 1).

While the appearance of the new roof was important to the historical interpretation of the house, a sound, long-lasting roof was important from a practical point of view. Previous roofs (1818, 1858, 1878, 1908) were plagued with early deterioration and moisture damage, and so, special attention was paid to obtaining the highest quality materials, detailing the new roof, and correcting existing problems.

In undertaking a re-roofing project, it is critical to look at the roof as a system and not as merely component parts. For that reason, work on the Arlington House roof went beyond the mere surface of the roof itself. The structural framing, decking, flashing, guttering, subsurface drainage, and attic ventilation were investigated and repaired where necessary.

The installation details and the materials selected were critical elements of the project. Arlington House had a long history of moisture penetration and resultant decay of sheathing boards. Therefore, extra attention was paid to flashing details, which included selective use of a rubberized membrane at critical flashing points and neoprene plugs around the lightning rods. Metal elements had to be designed as a system to avoid galvanic corrosion. As such, copper slating nails were used for the slate and lead-coated copper was used for the flashings, gutters, downspouts, and gutter bracket hangers. To increase the life of the entire roof assembly, ventilation was added to the unfinished attic for summertime cooling. The gutter sizing and condition of subsurface drains were studied to ensure proper water control.

Roof framing. The most serious deficiency found at Arlington House had been addressed in 1984 with the installation of new steel fink trusses in the attic to strengthen the roof's original structural system. The house had originally been built with a wooden shingle roof; a much heavier slate roof was added by Robert E. Lee on top of the wooden shingles in 1858, presumably for fireproofing. Serious settlement and shifting of the roof framing occurred shortly after the slate was added. While there is evidence of numerous repairs and reinforcement throughout the history of the roof to correct these problems, these solutions did not eliminate all the surface deflections and irregularities in the roof.

While the structural strengthening was completed in 1984, some areas of deflection remained. In removing the circa 1908 slates (which were 18"x9"), it became evident that the north slope of the roof was sagging approximately 3" near the eaves. This created a wavey effect between trusses and caused a dip in the roof where snow was likely to settle and exacerbate an ice dam problem. To resolve this problem, knee braces made from 4"x4" pressure treated lumber were added in 1991 in the attic to support each rafter end on the north slope. A similar repair had previously been made to the south slope when a substantial number of the eave boards were replaced.

Roof deck. Once the deflections were eliminated, there was concern that the existing sheathing boards dating from 1878 would not be able to hold another generation of slating nails. The boards were dry and fibrous from the extreme summer heat in the attic and were full of holes from previous nails, yet they were over 100 years old and were an important element in the history of this roof. It was determined that these wide boards (8"15"), visible from the attic area, should be kept in place and repaired as necessary. A new layer of 5/8" CDX plywood was installed above the older sheathing boards as a nailing bed for the new slates. The additional weight of approximately 2.5 lbs/square foot was found to be easily tolerated by the steel fink trusses added in 1984. The new deck also served to even out some of the remaining irregularities on the roofing surface.

Underlayments. Once an even roof deck was installed, a weather protection system was developed. The lower 5' of the roof deck was covered with a rubberized membrane to help with controlling ice dams and to add a critical layer of protection under the snow boards where the sheathing boards had traditionally rotted first. A 45 mil (.045) EPDM (ethylene propylene diene monomer) membrane was selected. It was also used under traditional flashings at the ridge, off-set gable between the portico and main block, and under the chimney crickets (photo 2). Plywood decking not covered with EPDM was covered with 63 pound roofing felt to cushion the slates and to give protection from summer storms during the 2 months of reroofing work. Wherever the EPDM and the roofing felt came into contact, a 24" buffer strip of rosin paper was used. (It is not generally advisable to use a rubber membrane over an entire pitched roof as it may accelerate sheathing deterioration due to trapped condensation between the rubber and the wood.)

Flashings. The flashing removed as part of the restoration work dated to 1908 and was of heavy gauge copper. It was in good condition, but its useful remaining life was not sufficient to reuse on a new roof assembly. The new flashing material selected was a 20 oz. lead-coated copper (LCC) which would be compatible with other materials on the roof, would integrate with the gutter and downspout system, and would have an extended life. The flashing was to be fastened with copper nails or lead wool packing at the chimneys (photo 3). It was used for base flashing, cap flashing, crickets, and drip edges. While 24 oz. stock had been sought initially for base flashing (due to the abrasive nature of slate chip erosion), it was difficult to obtain for such small quantities in the limited time allowed for procurement. Standard 16 oz. lead-coated copper was too thin for the expected 100-year life of this roof. When the lead coat wears through (in 50-75 years depending on the air pollutants) the remaining copper will still have a substantial life.

Ventilation. To avoid further drying of the roof members and the new sheathing, it was important to add ventilation to the roof. A 1982 engineering report recommended that forced ventilation be added to the attic to reduce the summer heat, which can exceed 140° Fahrenheit. A thermostatically controlled fan mounted on a rolling platform was set in the gable window of the attic. A black metal hood allows the fan to be set back about 3' from the facade, reducing the visual impact of the new element. This "low-tech" solution will provide temporary ventilation until a more sophisticated system is developed in conjunction with the new heating and cooling system for the house.

2. Modern methods of detailing joints were used where moisture could penetrate to the roof deck. At this offset between the lower portico roof and the main block, a hidden rubberized membrane was selectively used in connection with traditional lead-coated copper flashing.

3. Traditional methods were used to pack lead wool into flashing reglet (narrow slit) joints to hold the cap flashing tight with the stuccoed chimney.

Gutters. The original smaller gutters and downspouts visible in the Civil War era photographs were part of a system that channeled rainwater to hogshead barrels for domestic use. However, it was decided that they not be restored to their original small size as their function had changed. These gutters and downspouts— originally painted sections of tin coated iron, slightly less than 3" in diameter—were replaced in the 20th century. The new downspouts are 4" in diameter with the 6" half round gutters.

Lead coated copper (LCC) was selected for the gutter and downspout system for its durability, materials compatibility, and ease of maintenance. The distinctive elongated elbow connection to the downspout, a historical feature, was incorporated into the new downspouts (photo 4). The new gutter system will be allowed to oxidize to a soft grey patina, which will eliminate the need for added painting and maintenance work. The shanks to the gutter hangers are installed under the slate, and detachable brackets will allow the gutters to be replaced later without interfering with the water-tight integrity of the roof. Gutter brackets were set every 18" to provide good anchorage. Many gutters fail or sag due to wide spacing of the supports.

(continued on page 8)

4. New gutters and downspouts repeat the historic configuration, but are slightly larger to handle water run-off. Note the elongated elbow on the upper section.

5. A durable Virginia blue-black slate was selected for the re-roofing. Traditional hand working was necessary to achieve an even appearance of the slates. Note the gutter brackets hanging down at the facia and the snow board anchor sticking up at the second course of slates. Half round gutters and the snow boards were installed towards the end of the job.

6. Cypress, a durable wood, was selected for the snow boards and stainless steel was selected for the support brackets because it will not corrode. Note the lead coated copper drip edge under the slate and the slight kick-up at the eave created by a cypress wood spacer. The deteriorated portion of the cornice was in the process of being repaired.

A New Roof For Arlington House
(continued from page 7)

Drainage. A subsurface utility engineering company was hired to map and inspect the subsurface drains, thought to be the cause of periodic moisture problems around the foundation of the house. It appeared reasonable that if the roof were to receive new gutters and downspouts, this would be a good time to ensure that the rainwater was, in fact, being carried away in drains that were properly sized, free-flowing, and in good condition.

A miniature video camera was attached to a 200′ cable which was lowered into the drain boots to record the condition, size, connections, and materials of the drains. The inspection revealed that the size of the subsurface drains was adequate for the water run-off, but that one of the drains was seriously blocked and another was partially blocked. There did not appear to be any serious cracks in any of the older clay or cast iron pipes. The blocked drains were cleaned out and will be inspected periodically to ensure proper drainage.

Slate. Virginia slate, a durable blue-black slate, was selected for the reroofing of Arlington House (photo 5). There is no documentation on the source of the original slate installed by Robert E. Lee in 1858. It is known, however, that there were active veins of slate in Virginia and a local source is a reasonable assumption. Slates were ordered from the Buckingham Quarry in Arvonia, Virginia. Slate sizes are listed in the order of length, width, thickness (24″x12″x3/16″) and a square covers 100 square feet of roof. Fifty squares were ordered for the roof with 12 additional squares for surface variations, breakage, and future repair stock.

The historic slate roof was very simple with a plain plank snow board. The Civil War era photographs reveal a deteriorated band of snow boards, some sections physically missing, with metal support posts evenly positioned about every 5′ or 6′. The metal anchors removed as part of the recent restoration work were modern flat iron brackets improperly cut into the roof and the source of moisture damage. The new anchors installed for the snow boards reflected the historic shape and were properly sized (1 3/4″ wide with a 7 1/2″ upper leg and a 30″ lower leg) to fit completely under the second course of slate with an attachment directly to the new deck. Stainless steel was selected in place of steel to avoid corrosion and to be compatible with the other metals on the roof. Stainless steel bolts, 2 per anchor attach the 2x6 cypress snow boards (photo 6). A grey factory applied paint softened the bright stainless finish.

Summary

The re-roofing of Arlington House was accomplished over the summer of 1991 by a multi-disciplinary team that looked at the roof as a system rather than a series of individual job elements. The slate was ordered a year in advance based on photographic documentation provided by microscopy. Historic structure reports and engineering studies provided valuable background information on the history of the various roofs on Arlington House and areas of chronic deterioration that needed to be addressed in a comprehensive manner. Careful planning at the beginning of the job ensured that existing problems were corrected to avoid reroofing sooner than

(continued on page 40)

Managing Repatriation: Implementing the Native American Graves Protection and Repatriation Act

Francis P. McManamon

Not long ago, a colleague remarked that all this "repatriation business" would disappear if only existing statutes were adhered to. I remember thinking at the time that only the Archaeological Resources Protection Act could result in some human skeletons being considered as scientific or museum specimens, and that this statute did not apply to very many of the museum or scientific collections that archeologists might be concerned with. In fact, most statutes that dealt with human skeletons were state or local statutes designed to protect burials or cemeteries. In 1989 and 1990 Federal statutes were enacted that provided direction on how Native American remains and other special artifacts are to be treated. The 1989 statute deals with collections owned or controlled by the Smithsonian Institution. In 1990, a far more comprehensive statute, the Native American Graves Protection and Repatriation Act, was enacted.

On November 16, 1990, President Bush signed into law the Native American Graves Protection and Repatriation Act (P.L. 101-601, 25 U.S.C. 3001-3013). The law has generated widespread interest and concern among Native Americans, museum professionals, archeologists, and Federal agency officials charged with meeting its requirements. A variety of actions are needed to implement the Native American Graves Protection and Repatriation Act of 1990. These range from the bureaucratic establishment of the review committee mandated by the law, to the development of regulations, to providing training in various aspects of compliance and administering a grants program. This article describes two of the main aspects of the statute that seem clear in the language of the act and the intent expressed in congressional reports on the legislation that became the statute: (1) the types of organizations primarily responsible to undertake activities required by the statute, and (2) the kinds of remains and artifacts covered by the statute.

Both the statutory language and the Committee reports describe the context for effective implementation. A successful approach will require consultations and agreements between and among Indian Tribes and Native Hawaiian organizations, traditional Native American religious leaders, Federal agencies, and museums receiving Federal funds. The Committee reports express the hope that these discussions will lead to a better understanding of the historic and contemporary cultural values of remains and objects. The Senate Report notes both that human remains must at all times be treated with dignity and respect and the important role that museums play in educating the public and increasing social awareness about the Nation's prehistory and history.

Overview of the Act

The Native American Graves Protection and Repatriation Act establishes two main requirements. First, Federal agencies and museums receiving Federal funds are required to inventory individually Native American human remains and associated funerary objects and develop written summaries for unassociated funerary objects, sacred objects, and objects of cultural patrimony that are in the collections they own or control. As part of the inventory process, agencies and museums are to establish, as best they can from the items, records, and other data, the likely lineal descendent(s) or cultural affiliation of these items with modern Native American individuals, Indian Tribes, or Native Hawaiian organizations, or conclude that lineal descent or cultural affiliation cannot be established. Agencies and museums must notify Indian Tribes or Native Hawaiian organizations that appear to be culturally affiliated with the items of their holdings and offer them the opportunity to claim the remains and items. Tribes and Native Hawaiian organizations may then request the repatriation of these cultural items and are entitled to those with which they are culturally affiliated or to which they have a relationship of lineal descent.

Potential lineal descendants, Indian Tribes, or Native Hawaiian organizations may request the repatriation of human remains or associated funerary objects for which no cultural affiliation is established by the agency or museum, or for which they disagree with the lineal descent or cultural affiliation established by the agency or museum. Remains and objects for which lineal descent can be demonstrated or for which a Tribe or Native Hawaiian organization can show cultural affiliation by a preponderance of the evidence using geographic, kinship, biological, archeological, anthropological, linguistic, folklore, historic, oral traditional, or other relevant information or expert opinion are to be repatriated, if requested by the appropriate descendent, Tribe, or Native Hawaiian organization.

The statute also requires a set of steps and conditions related to the description of cultural items, either through item-by-item inventories or written summaries, the evaluation of likely lineal descent or cultural affiliation, and the repatriation of unassociated funerary objects, sacred objects, and objects of cultural patrimony are similar to those for human remains and associated funerary objects.

The second principal intention of the law is the protection, on Federal and Tribal land, of Native American graves and other cultural items still located within archeological sites. This approach encourages the in situ preservation of archeological sites, or at least the portions of them that contain burials or other kinds of cultural items,

(continued on page 10)

Managing Repatriation: Implementing the Native American Graves Protection and Repatriation Act
(continued from page 9)

but may encompass other actions to preserve these remains and items. Therefore, it is advantageous for Federal agencies and Tribes undertaking land-modifying activities on their lands to precede them with careful consultations with traditional users of the land and intensive archeological surveys whenever possible. This will help agencies and Tribes to locate and then avoid unmarked Native American graves, cemeteries, or other places where cultural items might be located. On Federal and Tribal lands, archeological investigations for planning or research purposes, or other land modifying activities that inadvertently discover cultural items require the Federal agency or Tribe involved to consult with affiliated or potentially affiliated Native Americans concerning the treatment and disposition of these items.

Other provisions of the Act may be summarized as follows: (1) it stipulates that illegal trafficking in human remains and cultural items may result in criminal penalties; (2) it authorizes the Secretary of the Interior to administer a grants program to assist museums and Indian Tribes in complying with this law; (3) it requires the Secretary of the Interior to establish a Review Committee to provide advice and assistance in carrying out key provisions of the statute; and (4) it directs the Secretary to develop regulations in consultation with this Review Committee.

Responsible Organizations

Executing the provisions of the Graves Protection and Repatriation Act involves three primary participants: Federal agencies, all museums receiving Federal funds (including state, local, and private institutions), and Indian Tribes and Native Hawaiian organizations. This section summarizes the roles of each. Oversight of and directions for the activities required of these three types of organizations are to be provided by the Secretary of the Interior and the Review Committee established by the statute.

Other organizations with which some of the activities required by the Act should be coordinated are the Advisory Council on Historic Preservation and the State Historic Preservation Officers . For projects or activities that require review under Section 106 of the National Historic Preservation Act in addition to the Graves Protection and Repatriation Act, close coordination during the completion of the two review processes will save time in project planning and execution.

Indian Tribes and Native Hawaiian Organizations

The definitions of Indian Tribe and Native Hawaiian organization are provided in the statute. The statutory definition of Indian Tribe is, "any Tribe, band, nation, or other organized group or community of Indians, including any Alaska Native village (as defined in, or established pursuant to, the Alaska Native Claims Settlement Act), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians." Native Hawaiian organizations are defined by the statute as, "any organization which (A) serves and represents the interests of Native Hawaiians, (B) has as a primary and stated purpose the provision of services to Native Hawaiians, and (C) has expertise in Native Hawaiian Affairs, and shall include the Office of Hawaiian Affairs and Hui Malama I Na Kupuna O Hawai'i Nei."

These definitions are important in describing the organizations that may make claims related to the rights affirmed by the statute. They also make clear that agencies and museums are to deal with representatives of these organizations, not with Native American individuals, or those claiming to be Native Americans, except in cases for which lineal descent is being claimed.

Museums Receiving Federal Funds

The statute defines "museum" as "any institution or state or local government agency (including any institution of higher learning) that receives Federal funds and has possession of, or control over, Native American cultural items. Such term does not include the Smithsonian Institution or any other Federal agency."

A number of Federal agencies supply financial support to museums and most museums receive at least some Federal funds. The committee reports are silent on issues of when and how directly any museum has received funding in order for it to be required to comply with the statute. Most large museums and many smaller museums within the United States will have to comply with this statute.

Museums are required to conduct inventories or written summaries of all cultural items within their collections regardless of the means of accession or geographical point of origin of the items. Some museums serve as the repositories for cultural items that were obtained from Federal or Tribal lands. The museums may conduct the required inventories or written summaries on behalf of Federal agencies or Tribes if these entities request it. However, for human remains and other cultural items that came from Federal lands or for which Federal agencies have administrative responsibility, each agency must ensure that inventories or summaries are done either within each agency structure or by a repository. Federal agencies may transfer the workload to a museum, not the ultimate responsibility for complying with the statute.

Federal Agencies

Except for the Smithsonian Institution, which is covered under a separate statute, all Federal agencies that manage land or are responsible for archeological collections from their lands or generated by their activities must comply with the Native American Graves Protection and Repatriation Act.

In addition to these three kinds of primarily responsible organizations, two other officials or committees are key to the implementation and functioning of the statute.

Secretary of the Interior

The statute assigns responsibility for implementation of many aspects of the Native American Graves Protection and Repatriation Act to the Secretary of the Interior. Specifically, the Secretary must:

(1) establish a review committee of seven persons to monitor and review inventory, identification, and repatriation activities;
(2) provide reasonable levels of administrative and staff support for the review committee along with any rules and regulations for its operations; and
(3) promulgate regulations for implementing the statute.

In addition, the Secretary is authorized to do the following:

(1) develp and administer a grants program to assist Tribes and museums in repatriation activities;
(2) review requests from museums for extensions of time to complete inventories of human remains and funerary objects, and to grant temporal extensions upon finding a "good faith" effort;
(3) assess civil penalties of any museum that fails to comply with the statute or its implementing regulations; and
(4) when requested by agencies, assume the review and consultation responsibilities that would normally be required of Federal agencies when Native American cultural items are discovered inadvertently on agency lands.

Selected Secretarial responsibilities have been delegated to the Departmental Consulting Archeologist, Archeological Assistance Program, National Park Service.

The Review Committee

This review committee is established by Section 8 of the statute. The committee's views do not bind the Federal Government, but will be a very important consideration for any action that the Secretary or others must take in implementing the statute.

To ensure a fair expression of all views, committee membership is explicitly stated in the law. Appointment of members is by the Secretary of the Interior from nominations submitted by Indian Tribes, Native Hawaiian organizations, and traditional Native American religious leaders, and from national museum and scientific organizations. Consisting of seven members, the duties of the committee are to monitor and review inventory, identification, and repatriation activities. It may make findings relating to cultural affiliation and repatriation issues if requested, facilitate the resolution of disputes, consult with parties, and offer suggestions about the care of repatriated materials. The regulations that implement the statute are to be developed in consultation with the committee. The committee must compile an inventory of culturally unidentifiable human remains that are in the possession or control of each museum and Federal agency, and recommend specific actions for developing a process for disposition of such remains. Each year, the committee is to submit a report to Congress on the progress made and any barriers encountered in carrying out its function.

The statute assigns an important role of national scope to the committee. However, most specific matters concerning repatriation, inventory, and potential agreements concerning excavation are best approached through agreements negotiated by local agency offices, museums, Tribes, and Native Hawaiian organizations. It is anticipated that the committee's role in consulting and facilitating dispute resolution will only be invoked when such agreements at the local level are not possible.

What is Covered: The Definitions of Cultural Items

The kinds of remains and the artifacts covered by provisions of the statute are: (1) human remains and associated funerary objects; (2) unassociated funerary objects; (3) sacred objects; and (4) objects of cultural patrimony. With the exception of human remains, each of these kinds of cultural items is defined within Section 2 of the statute.

"Human remains" are not defined in the statute, and consequently all Native American human remains are covered. This means that whether or not Native American human remains came from a burial site, such remains are covered by the statute. In other words, isolated human bones, teeth, hair, or other kinds of bodily remains that may have been disturbed from a burial site are still subject to the provisions of this statute.

"Associated funerary objects" are objects reasonably believed to have been placed with human remains as part of a death rite or ceremony. The use of the adjective "associated" refers to the fact that these items retain their association with the human remains with which they were found and that these human remains can be located. It applies to all objects that are stored together as well as objects for which adequate records exist permitting a reasonable reassociation between the funerary objects and the human remains that they were buried with. This situation may include materials located in a different repository from the human remains. This category of cultural items also includes objects "...exclusively made for burial purposes or to contain human remains...", but that may not have been found with human remains.

It frequently occurs in archeological sites that artifacts seemingly from burials were not placed with the human remains as part of a death rite; rather they have been introduced into the burial later by natural processes or cultural activities unrelated to death rites or ceremonies. These latter objects would not be considered funerary objects.

"Unassociated funerary objects" are items that "...as a part of a death rite or ceremony of a culture are reasonably believed to have been placed with individual human remains either at the time of death or later...", but for which the human remains are not in the possession or control of the museum or Federal agency. These objects also must meet one of two further conditions. They must be identified by a preponderance of the evidence as either "... related to specific individuals or families or to known human remains..." or "...as having been removed from a specific burial site of an individual culturally affiliated with a particular Indian tribe."

"Sacred objects" are defined in the statute as "...specific ceremonial objects which are needed by traditional Native American religious leaders for the practice of

(continued on page 12)

Managing Repatriation: Implementing the Native American Graves Protection and Repatriation Act
(continued from page 11)

traditional Native American religions by their present-day adherents..." Further discussion of this term is supplied by the Senate Committee report:

"There has been some concern expressed that any object could be imbued with sacredness in the eyes of a Native American, from an ancient pottery shard to an arrowhead. The Committee does not intend this result. The primary purpose of the object is that the object must be used in a Native American religious ceremony in order to fall within the protection afforded by the bill."

Additional information is supplied by the House Report:

"The definition of "sacred objects" is intended to include both objects needed for ceremonies currently practiced by traditional Native American religious practitioners and objects needed to renew ceremonies that are part of traditional religions. The operational part of the definition is that there must be 'present day adherents' in either instance."

The key provision in this definition is whether the items are needed to practice or renew traditional religions. It should be possible to describe specific religious uses for the objects identified as sacred. Review of this definition through the regulation development process may require definitions of such terms as "religious leaders," "traditional," and "religious use." All of these terms probably will vary among groups and between regions.

"Objects of cultural patrimony" are defined in the statute as having "...ongoing historical, traditional, or cultural importance central to the Native American group or culture itself, rather than property owned by an individual Native American, and which, therefore, cannot be alienated, appropriated, or conveyed by any individual..." The key provision in this definition is whether the property was of such central importance to the Tribe or group that it was owned communally. The potential vagueness of this term again produced comment by the Senate Committee:

"The Committee intends this term to refer to only those items that have such great importance to an Indian Tribe or to the Native Hawaiian culture that they cannot be conveyed, appropriated or transferred by an individual member. Objects of Native American cultural patrimony would include items such as Zuni War Gods, the Wampum belts of the Iroquois, and other objects of a similar character and significance to the Indian Tribe as a whole."

In contrast to a more general usage, the Senate Committee comments concerning "objects of cultural patrimony" indicate that most often this category will relate to specific, often ethnographic objects, rather than a generic class of archeological objects; we believe that this category probably includes few archeological objects. On the other hand, some items found in museums or collections of Federal agencies may have been inadvertently acquired from individuals who had no right of alienation or possession.

Having reviewed the definitions of cultural items, note that many objects in archeological or ethnographic collections are not covered by the statute, because they never had a burial, funerary, religious, or cultural patrimonial context in the culture that they were part of. Such objects would be retained in existing repositories with appropriate treatments and care. When archeological investigations or unanticipated discoveries on Federal or Tribal land result in the recovery of such items, they are to be treated and disposed of according to the requirements of the appropriate archeological or historic preservation laws.

Summary

The requirements of the Native American Graves Protection and Repatriation Act and the legislative intent based upon the committee reports present a clear picture of the kinds of organizations that bear primary responsibility for actions under the statute. There are three main types of organizations responsible for various actions required by the statute: Indian Tribes and Native Hawaiian organizations, Federal agencies, and museums that receive Federal funds. Similarly, the kinds of objects in existing collections and that will be excavated or inadvertently discovered on Federal or Tribal lands and are subject to treatment or disposition as described in the act are clear.

This article has attempted to integrate many comments and answer questions we have received from museums, Federal agencies, and Native Americans concerning the statute. Many of these suggestions and the issues that they raise cannot be answered outside of the formal rulemaking process. We have attempted to explore some of the issues that this process may consider.

All Federal agencies, museums that receive Federal funds, Indian Tribes, and Native Hawaiian organizations are encouraged to collaborate in developing creative and mutually respectful solutions to the challenges posed by this important statute.

Dr. Francis P. McManamon is the Departmental Consulting Archeologist for the U.S. Department of the Interior and chief, Archeological Assistance Division, National Park Service, Washington, DC.

Raising the Dead
Reconstruction Within the Canadian Parks Service

Shannon Ricketts

In 1846 the English conservationist John Ruskin wrote, "It is impossible, as impossible as to raise the dead, to restore anything that has ever been great or beautiful in architecture."[1] This may seem an extreme statement—and so it is—but it represents the inception of the philosophy which has informed much of our present attitude toward conservation. Ruskin was one of the most uncompromising in a long line of writers and architects who preached maintenance over restoration (or reconstruction) and a fitting humility in dealing with historic buildings. Even before Ruskin's impassioned statement, French archaeologist A.N. Didron (1839) set down a dictum which has since become so familiar that present-day conservationists sometimes think it is a recent statement: "It is better to preserve than to restore and better to restore than to reconstruct."[2]

This hierarchy of values was formally recognized in the code of ethics concerning treatment of historic architecture produced by UNESCO in 1964 and known as the Venice Charter.[3] Since the 1960s, conservationists in various countries have devised national charters based on this principle. One of these is the Appleton Charter, formulated by the English-speaking branch of ICOMOS

(continued on page 14)

Reconstruction—Controversy on Both Sides of the Border

Barry Mackintosh

As I noted in a 1990 issue of CRM (Vol. 13, No. 1), reconstruction has probably aroused more controversy over the years than any other cultural resource management activity of the National Park Service (NPS). In March 1992, I was invited to a workshop on reconstruction conducted by the Canadian Parks Service (CPS) to discuss the NPS experience with this activity. It was readily apparent that the controversy is not limited to our side of the border.

As I listened to the other presentations, I was struck by the close parallels in reconstruction philosophy, policy, and practice between our Canadian counterparts and ourselves. In the CPS as in the NPS, professional reluctance has often been pitted against and overcome by public and political pressures for enhanced interpretation and tourism. Both park services face challenges of maintaining log and earthen reconstructions whose originals were never designed for permanence and of dealing with reconstructions deficient in accuracy. Within both services there are broad differences of opinion among CRM professionals, interpreters, and managers on the value and appropriateness of reconstruction.

Two of the papers I found most illuminating are reproduced in this issue. Although CRM's American readers may find some of the names and places unfamilar, they will readily recognize the plot. Readers may also be provoked by some of their insights and conclusions—the best reason of all to imbibe what follows.

Barry Mackintosh is the Bureau Historian, National Park Service.

Reconstruction Workshop

The Canadian Parks Service (CPS), like its U.S. counterpart, is responsible for the administration of a number of nationally significant historic sites as well as the national parks and national marine parks. There are now some 750 national historic sites in Canada, and the part of the national historic sites system administered by CPS is still expanding —it currently comprises 114 sites ranging from pre-European native sites to 20th-century commercial and industrial establishments.

And, as in the U.S., several of those sites contain, or consist entirely of, structures that are not original but are reconstructed, often on the foundations of otherwise vanished buildings. Although the number of reconstructions is not great — 19 sites are involved all told—reconstruction as a presentation (i.e., interpretation—ed.) device is widely considered to loom large in the popular perception of what historic sites are or should be. The ethics and value of this approach have been debated on both sides of the border for as long as our respective services have been in business.

Since the 1960s, CPS archaeologists, architects, historians, and engineers have worked together on reconstruction projects and have realized that whatever approach to conservation and presentation is taken, it has to be in an interdisciplinary team.

In March 1992 a workshop was held in Hull, Quebec, to examine the subject of reconstructions within the context of the new Cultural Resource Management Policy that CPS issued in 1990. The workshop brought together representatives from several disciplines and from all levels of the CPS organization: headquarters, regions, and the field. In three days of sessions, participants examined the reconstructions existing in the CPS system through case studies, identified known and anticipated problems and issues, and looked at how these would be addressed in the context of the CRM Policy. The workshop identified a number of follow-up actions that are now being pursued.

The following papers were presented at the reconstruction workshop. Other papers from the workshop will be included in future issues of *CRM*. CPS will be publishing the complete workshop proceedings later this year.

— CPS

Raising the Dead:
Reconstruction Within the Canadian Parks Service
(continued from page 13)

Canada in 1983.[4] This philosophy also forms the backbone of the Levels of Intervention System used by many heritage professionals within the Canadian Parks Service. This set of guidelines subdivides conservation into two categories: at the level of minimum intervention is preservation (or protection), which consists of interim protection and stabilization; more radical intervention is defined as development (or enhancement). The latter includes period restoration or rehabilitation and, at the maximum level of intervention (i.e., replacement), means either period reconstruction or contemporary redevelopment. The recently proposed CPS Cultural Resource Management Policy is also based on the concept of a "continuum of strategies," but has placed reconstruction within the category of presentation. This clearly stated distinction between conservation and presentation is fairly recent and reflects the accumulated experience of CPS over the greater part of a century.

According to the CPS Policy, the general objective for the Service is "to fulfill national and international responsibilities in assigned areas of heritage recognition and conservation; and to commemorate, protect and present both directly and indirectly, places which are significant examples of Canada's cultural and natural heritage in ways that encourage public understanding, appreciation and enjoyment of the heritage in a sustainable manner." Within this apparently bland statement lie the seeds of a dilemma—namely, the directives both to protect and to present significant examples of our cultural heritage. While physical remnants may be best protected by simply guarding them against natural and human interference (i.e., the natural ravages of time), this does little to explain or to present those remnants within a cultural or historical context. In other words, how can the sometimes competing demands of conservation and presentation be weighted given limited resources? Amongst myriad methods of interpretation, reconstruction has been, and remains, one of the most popular, especially in the view of the general public for whose benefit heritage professionals are charged with the protection and presentation of cultural remnants.

Seen in its historical perspective in Canada, reconstruction was driven by a desire to enhance the presentation of a site and/or remnants of a cultural resource. In many ways, each reconstruction can be seen as a product of its time, reflecting changing attitudes toward interpretation and to conservation. If CPS accepts this view, then do reconstructions themselves have a heritage character or value which should be protected? Or, as presentation tools, are they to be compared with the story line whose accuracy should be enhanced as new information becomes available? If, to paraphrase John Ruskin, it is as impossible to restore a building as to raise the dead, then to reconstruct is even more hopeless. Nevertheless, however imperfect such re-creations may be as historical documents, they have served an interpretive purpose. In addition, they have acquired a new level of meaning as documents of their own time.

This paper will trace the practice of reconstruction as carried out by the CPS over the course of this century and will attempt to place it in the context of related activities by other organizations, both national and international, at similar points in time. By following this historical development, I hope to clarify how CPS has reached its present philosophy regarding conservation and presentation and to test its reconstructions against Ruskin's maxim.

The first known act of conscious historical reconstruction in Canada was the rebuilding of three gates in the walls at Québec City by Lord Dufferin in 1875. Outraged by the city's desire to pull down part of the walls in order to improve transportation routes, Governor General Lord Dufferin hired Irish architect William Lynn to apply his specialty in "picturesque medieval military construction" in rebuilding gates which would maintain the flavour of the originals while allowing the desired improvement in street access.[5] It has been suggested that Lord Dufferin was influenced by French architect Viollet-le-Duc's conservation of the walled city of Carcassonne in southwest France earlier in the century.[6] The rebuilding of the Québec gates was an anomaly in Canada and was more representative of the views of Lord Dufferin than those of Canadians of the time. Nor was this reconstruction project intended to re-create a vanished resource in a historically accurate manner. Rather it was expressive of the romantic views and picturesque tastes of the era. This very early occurrence of reconstruction was not repeated until much later in the 20th century.

The Era of the Military Site: The 1920s–1940s

The first stage of reconstruction history in Canada really occurred in the 1920s and 1930s and coincided with a growing momentum in the architectural conservation movement. At that time, Canadian conservationists were encouraged by developments in the United States, where historic sites were receiving attention from both the private sector and the federal government. In Canada, private sector sponsors were not involved to the same extent, and the public looked to governments at both the provincial and the federal levels to ensure the preservation of the nation's heritage. Quebec passed heritage legislation as early as 1922, and in 1925 British Columbia enacted laws to protect Indian artifacts. Academic interest in the nation's architectural heritage was reflected in the schools of architecture at McGill and at the University of Toronto, where students were directed in the production of measured drawings of historic architecture. In Nova Scotia, A.W. Wallace produced similar records of that province's early buildings. Enthusiasts formed action groups such as the Architectural Conservancy of Ontario.

While interest in historic buildings and sites continued to grow in the 1930s, the economy was in shambles. Following the precedent of U.S. President Roosevelt's New Deal, the Canadian federal government passed the Public Works Construction Act in 1934 to provide funding for the erection of public buildings across the country. Through this program the Parks Branch was able to finance construction work at various historic sites, including the Prince of Wales Martello Tower in Halifax, Fort Anne [Nova Scotia], Fort Prince of Wales [Manitoba], and Fort Langley [British Columbia]. Depression relief funds also were made available at a

provincial level and in Ontario resulted in such projects as the reconstructions at Fort George and Fort Henry as well as the restoration of Fort York.

In most cases it was local historical organizations which had provided the initial impetus to commemorate, preserve, and ultimately, to interpret. This was so in the Niagara area, where local enthusiasts had been encouraging governments at all levels to develop historic sites, particularly those which would commemorate the War of 1812. During the 1930s the Ontario government, through the Niagara Parks Commission, sponsored four reconstructions—Fort Erie, the William Lyon Mackenzie House at Queenston, Navy Hall at Niagara-on-the-Lake, and Fort George.[7] The reasons for the Ontario government becoming so highly involved in historic sites at this time are a complex mix of altruism and pragmatism.

First, as has been mentioned, these sites had been the focus of local preservation efforts for some time. Second, the great popular success of Colonial Williamsburg, opened in 1933, and the even earlier reconstruction of Fort Ticonderoga on Lake Champlain, re-created through archival and archaeological evidence in 1907, provided examples of the happy conjuncture of patriotism and capitalism. Closer to home, the 1930s reconstruction of Fort Niagara on the American side of the Niagara River underscored the neglected condition of the historic sites on the Canadian shore.[8] For politicians like the dynamic Minister of Ontario's Department of Highways, T.B. McQuesten, Williamsburg and some of the reconstructions carried out by the American National Park Service provided examples of how a lagging economy could be primed. Relief funds provided salaries for a small army of crash workers who would create a local attraction capable of drawing badly needed tourist dollars to a depressed area.

Third, the gradual professionalization of the discipline of history was beginning to bear fruit in the increasing numbers of trained historians and archaeologists, and in the improved organization and collections of archives and research libraries. Confidence in the ability to recover verifiable facts concerning historic sites encouraged policy makers to attempt reconstructions. Ironically, these same officials sometimes became cavalier in their impatient assessments that "close enough was good enough" in the creation of historical replicas.

In the case of Fort George, the hiring of a lone historian, Ronald Way, fell far short of the team of historians and archaeologists working at a site like Williamsburg and set up an impossible tension between the time-consuming pursuit of historical data and the immediate demands of a large work force which had to be kept busy. Additionally, the architect-incharge, William Lyon Somerville, while well known for his revival-style homes for wealthy patrons in Toronto, had no previous experience in reconstructing historical sites. Inevitably, the needs of the present won out over those of the past. Later, Niagara Parks historian Ronald Way, while acknowledging that the Fort George reconstructions were based largely on a concept of typical building types and, therefore, could not be defended from the point of view of historical accuracy,[9] went to some lengths to defend the concept of reconstruction as the visual teaching of history. This is a sentiment still shared by defenders of reconstruction today.

Courtyard, Port Royal Habitation, Nova Scotia. Canadian Government Travel Bureau photo, CTB 3-218.

At the same time, a parallel project was being undertaken in Nova Scotia. What is now known as the Habitation of Port Royal had long been supported as a potential national historic site by the local Annapolis Royal Historical Association. During the 1920s, wealthy American summer residents, aware of re-created sites in the United States, became active in raising money and supporting research with the aim of constructing replicas of the original buildings on the site. It was declared a national historic site in 1924, and in 1938 the Dominion government acquired land comprising the original site and its immediate surroundings.[10] The American Associates of Port Royal paid the salary of an American archaeologist who excavated the site (an improvement over the total lack of archaeological investigation at Fort George) while others, including the site's American patroness Harriet Taber Richardson and Canadians C.W. Jeffreys, Marius Barbeau, Sylvan Brosseau, and Ramsay Traquair, carried out historical and architectural research.

In the end, many of the conclusions about the original structures were reached by making leaps of judgment across considerable gaps in available archaeological and historical data. Reconstruction work was carried out under the direction of the Surveys and Engineering Branch of the Department of the Interior using local craftsmen who, like those at Fort George, imitated the techniques of the past in a general way without having site-specific documentation. The supervising architect was K.D. Harris, the same Department of the Interior architect who had rehabilitated the Officers' Quarters at nearby Fort Anne in 1934–35 (a national historic park since 1917). In that case the objectives had been to remodel a late-18th-century-building and to make it fireproof. To these ends the Officers' Quarters were, according to Harris, "reconstructed." Historical veracity was not, in this case, the guiding motive. In fact, the exterior was "greatly improved in appearance by the introduction of moulded cornices and Georgian entrances with columns and pedimented roofs" and the walls were clad in a clever cement version of wooden clapboarding.[11]

Even when historical fact was the goal, the truth was

(continued on page 16)

(continued from page 15)

often elusive. In the cases of both Fort George and the Habitation of Port Royal, many of the conclusions about the original structures were incorrect. Consequently, the reconstructed buildings were built according to false assumptions. The results, while evoking an aura of history and providing a believable backdrop for popular interpretive schemes of the living museum type, were ultimately misleading. Contemporary critics were painfully aware of these dangers. Brigadier General E.A. Cruikshank, along with other members of the Historic Sites and Monuments Board of Canada, were generally opposed to such reconstructions. Cruikshank clearly stated that "in my opinion these attempts to reconstruct buildings which have entirely disappeared and are only known from vague descriptions or plans of doubtful authenticity with modern materials and workmen of the present time are absurd and a mere waste of money."[12]

Nevertheless, outdoor museums—whether consisting of a "restored" house like the Barnum House in Grafton, Ontario, purchased and restored by the Architectural Conservancy of Ontario in the 1930s, an assemblage of buildings moved from other sites in order to create an impression of a coherent historical community like the first (1891) outdoor museum in Skansen (a Stockholm suburb), Sweden, and the later Henry Ford Greenfield Village at Dearborn, Michigan, or elaborately reconstructed sites like Fort George and Port Royal—were (and continue to be) enormously popular with the public. More widespread use of automobiles by the 1930s encouraged this trend in cultural tourism which continues to grow today. Such sites blend education and entertainment. Disneyland is, perhaps, an expression of this trend carried to its extreme at a site which frankly forsakes the educational component and creates a confectionary version of a mythical main street representing an indulgently interpreted middle-American past.

In fact, in the years before World War II the Parks Branch was both philosophically and fiscally cautious regarding reconstructions. In 1920 the HSMBC recommended the preservation of six historically significant forts—Prince of Wales Fort at Churchill, Manitoba; the Fortress of Louisbourg and Forts Beauséjour, Gaspareaux, and Piziquid (Edward) in the Maritimes; and Fort Pelly in Saskatchewan. None of these was fully reconstructed. In the case of the old Hudson's Bay fort at Churchill, development became possible with the availability of Public Works Construction Act funds in 1934.[13] From 1934 to 1937, repair work was carried out on the exterior walls, which were largely reassembled. To some extent, this happy circumstance was undoubtedly largely a result of fiscal restraint and the fort's remote location rather than consciously applied conservation standards.

Nevertheless, it is Parks historian C.J. Taylor's opinion that the Parks Branch was aware of conservation philosophy and generally agreed with Ruskin's dictum that restoration "means the most total destruction which a building can suffer."[14] In 1920 James Harkin, Parks Branch Commissioner, stated as Parks policy: "If there is nothing but a pile of stones, it is not considered good policy to erect a fort on the lines of the original one."[15] Not all Board members agreed with this view, however. Already it was evident from developments to the south that beneficial economic results could be achieved by the reconstruction of historic sites as tourist destinations. Maritime province members were very interested in developing sites with tourism potential, as were politicians anxious to assist in the economic development of the areas they represented.

Local pressure also played a determining role in the development of both Louisbourg and Fort Beauséjour. The latter was designated a national historic site in 1928, and initial work included cleaning up of the grounds and repair work to the gateway, the mess room, and the powder magazine with the aim of stabilizing the remains until a policy for the site's development was decided on by the Branch.[16] In fact, the development of this site was decided largely by New Brunswick Board member Dr. J.C. Webster, who directed the erection of commemorative cairns and signage to guide visitors, as well as the clearing of trenches and acquisition of appropriate ordnance. Interventions to the existing ruins were modest and consisted of some archaeological digging and the building up of an exterior wall to a height of about 10 feet. Much of Webster's energy was taken up in the consolidation of land associated with the fort and in the establishment of a museum. This was made possible in 1934 by including the construction of a museum at Fort Beauséjour in the Public Works Construction Act allocations. From 1936, when the Fort Beauséjour Museum was opened, attention became focussed on improving its exhibits rather than on further development of the ruins.

A similar course of development occurred at the Fortress of Louisbourg. Declared a national historic site in 1928, it was initially allocated $23,000 for development.[17] At Louisbourg, wealthy entrepreneur and history enthusiast J.S. McLennan paralleled the role of Webster at Fort Beauséjour. McLennan, however, was more ambitious and believed that the reconstruction of Louisbourg was both possible and desirable.[18] He is reported to have been very impressed with American reconstructions at Fort Ticonderoga and at Valley Forge. Despite the views of the Parks Branch and British town planner Thomas Adams whom the Branch sent to evaluate the site in 1923 and who advised against reconstruction, the development plan submitted to the HSMBC in 1930 reflected McLennan's point of view and called for reconstruction of part of the King's Bastion and the West Gate, along with limited restoration of other parts of the ruins as well as the construction of a museum. Budgetary restraints ensured that work progressed relatively slowly and, while repair work was carried out on the casemates and some excavating of buildings was accomplished, reconstruction work was limited to the partial rebuilding of the walls of some four structures.

As at Fort Beauséjour, the museum, completed in 1936, became the operational and interpretive focus of the site until reconstruction work resumed in the 1960s. The device of the historical museum also was used at Fort Anne, Fort Chambly [Quebec], Fort Malden [Ontario], and Fort Langley. At sites where remains were fragmentary and potentially mysterious to the average visitor, the museum display became the didactive focus and a much less expensive means of interpretation than reconstruc-

tion. It is interesting to compare the attitudes of this period to those of later years which resulted in a much more ambitious reconstruction project. During the 1920s and 1930s, while opinions were split over the issue of reconstruction, even proponents like Webster envisioned only a modest project. There seems to have been a belief that the real value in a site like Louisbourg was to inspire Canadians with the drama of their own history and, to this end, the wild site and romantic ruins evoked a suitable setting for this Canadian version of the fate of Ozymandius. Quebec politician Henri Bourassa reportedly likened a visit to the site to "passing through the ruins of Pompeii."[19]

The Era of the Outdoor Museum: The 1950s–1960s

With World War II, activity declined until the 1950s, by which time an improved economy and more highly developed cultural agencies brought a renewed vigour to the heritage field at both the provincial and federal levels. These postwar years ushered in a new era in reconstruction. The concept of the outdoor museum gained immense popularity during the postwar period. The earliest identified example in Canada was an individual effort, Earle Moore's Canadiana Village in Quebec, which started with one relocated building in 1946 and gradually was added to, creating a nucleus of structures evoking life in a pre-industrial rural Quebec.[20]

In Ontario during the 1950s and early 1960s, several local groups established their own "pioneer villages." Perhaps reacting to a rapidly changing environment which included an increased rate of urbanization and a concomitant building boom, as well as a wave of immigration which brought new citizens who often did not share an awareness of Canada's earlier history, community organizations strove to save examples of the country's rural past. While Upper Canada Village was the most sophisticated and best-known such site, Black Creek, Doon, Fanshawe, Westfield, and Century pioneer villages also drew appreciative audiences. The best known is Upper Canada Village, conceived when it became obvious that the planned St. Lawrence Seaway would result in the flooding of numbers of historic buildings. Representative examples were removed from their threatened sites and relocated to the new "village" where they were restored and, in some cases, substantially reconstructed.

At a pragmatic level, these developments were made possible by increased levels of affluence and leisure among the general population who could access these sites by automobile and who were anxious that their children develop an appreciation of their past. By the mid-1960s, this trend was reinforced by patriotic responses to the celebration of Canada's centennial. Perhaps the most ambitious heritage project in Ontario in the 1960s was the reconstruction of Sainte-Marie I near Penetanguishene. The scope of such provincial projects reflects the growth and development of provincial heritage agencies by the 1960s.

In the West the image of the idyllic pioneer village was traded for that of the 19th-century trading post and fort. During the 1940s the Royal Canadian Mounted Police (RCMP) created an early and interesting version of a reconstructed historic fort at Fort Walsh, Saskatchewan.

Fort Walsh, Maple Creek, Saskatchewan. CPS photo.

Located on the site of a late-19th-century North West Mounted Police (NWMP) post, the re-created fort comprised 10 log buildings intended to evoke those at the original fort while satisfying the functional requirements of a contemporary horse-breeding station.[21] Largely the brainchild of RCMP Commissioner Stuart Taylor Wood, the fort was intended to preserve the force's traditions and did not accommodate tourists until the 1960s, when the RCMP enhanced the historic atmosphere in order to open the site to visitors in honour of the Canadian centennial. By this time the RCMP were planning to relocate the horse-breeding station and hoped that the National Historic Parks Branch would take over the site.

The RCMP figured large in the memory of the old West. In Alberta the first reconstructed historic site was the NWMP post at Fort Macleod. Rebuilt by a group of local enthusiasts in 1957, it preceded other reconstructed forts at Lethbridge, Red Deer, Calgary, and Edmonton. In Saskatchewan, Fort Walsh was followed, in 1967, by a provincial historic park at the former RCMP post at Wood Mountain. The park's museum was housed in a reconstructed barracks building. Similarly in British Columbia, the former RCMP post at Fort Steele was made a provincial historic park in the 1960s and developed with reconstructed buildings. The gold-rush town of Barkerville was also partially rebuilt and developed as a tourist venue. By the late 1960s, the idea of "heritage parks" was leading the development of many historic sites in the West as outdoor museums there reflected the historic and ethnic flavour of a relatively recent past.

At the federal level, the Massey Commission on the Arts, which published its report in 1952, was influential in broadening the HSMBC's commemorative scope and, during the immediate postwar years, the National Historic Parks Branch responded to its national mandate by attempting to develop at least one major heritage site in each region;[22] hence the establishment of a historic park (developed with reconstructions) at Fort Langley, British Columbia, the acquisition of Fort Battleford and the Batoche rectory in Saskatchewan, the acquisition of Woodside in Ontario—former Prime Minister William Lyon Mackenzie King's childhood home, which was reconstructed initially by local enthusiasts before being further developed by the federal government, the

(continued on page 18)

Raising the Dead:
Reconstruction Within the Canadian Parks Service
(continued from page 17)

restoration of the former Canadian Arsenals (now Artillery Park) in Québec City, as well as the Halifax Citadel in Nova Scotia and Signal Hill in St. John's, Newfoundland. By the 1960s the elaborately interpreted historic site was considered de rigeur. The living or outdoor museum concept had replaced the by-now outmoded regional museum collections as the preferred mode of interpretation at the sites.

This emphasis on the acquisition and development of historic sites was criticized by some outsiders, however. Organizations like the Architectural Conservancy of Ontario and the Royal Architectural Institute of Canada, which were not so much interested in the commemoration of historical events or persons as they were concerned with the preservation of the Canadian architectural heritage, pointed out the need for programs to ensure the survival of representative examples of Canada's domestic architecture in particular. At this point the seeds sown by such early proponents of architectural conservation as Ramsay Traquair, Eric Arthur, and A.W. Wallace began to flower. While the 1920s had seen the beginnings of an appreciation of architecture for both its aesthetic value and as a form of historical evidence, this attitude was confined to a few connoisseurs until the postwar years when the intellectual atmosphere encouraged ideas such as art for art's sake and a recognition of intrinsic values in art and architecture. Movements such as abstractionism in the art world and the parallel modernist mode in architecture focussed attention on more purely aesthetic values. Once one begins to view buildings as unique historical documents or as artistic products, the concept of replicating them becomes as suspect as forging archival manuscripts or artworks. This is what Ruskin and Morris appreciated in the 19th century and what was becoming more obvious to greater numbers of both heritage professionals and laymen by the 1950s and 1960s.

Clearly, distinctions between commemoration, interpretation, and conservation were critical to heritage policies at all levels. At the federal level there had always been members of the HSMBC and staff within the Parks Branch who were aware of the pitfalls inherent in confusing these issues. More often than not, the acquisition and development of heavily restored or reconstructed sites had been as much the result of political realities as it had been a reflection of directives from the Board or preferences within the Branch. Nor was it likely, given the popularity of reconstructions, that pressure to replicate historic structures would disappear. The success of reconstruction as an interpretive vehicle and the established association between elaborately developed historic sites and potential tourism earnings combined with more purely patriotic sentiments to ensure the continued desirability of reconstructions. In fact, many of the megaprojects pursued by the Branch during the 1960s relied heavily on reconstruction.

The very scale of these projects reflects their importance beyond the Parks Branch. The restoration of the Halifax Citadel, the reconstruction of the Fortress of Louisbourg, the development of Lower Fort Garry and that of the Yukon boomtown of Dawson all implied a substantial contribution to regional economic development at a ministerial level. For its part, the Parks Branch increased its professional capabilities to ensure that development would take place within controlled guidelines and with the fullest possible archaeological, historical, and architectural information. Nevertheless, at Louisbourg in the 1960s we again meet the now-established heritage consultant Ronald Way, who reports that the tensions between pragmatic project delivery and historical research were as vexing here as they had been 30 years earlier at Fort George.[23] Once again, pragmatism won out over professional ideals. This is not to say that the standards of historical veracity had not risen. Yet, despite the enormous investment of time, expertise, and money that went into Louisbourg, Ruskin's conviction of the impossibility of re-creating the past was born out.

The birth of Dawson as a national historic site reveals a similar pattern. A federal policy of northern economic development during the late 1950s included a scheme for tourism at Dawson hinging on a theatre festival to be held in the Palace Grand Theatre. Once again, time was of the essence and, given the decayed condition of the structure—an example of boomtown vernacular architecture erected without a great deal of concern for longevity—the Branch recommended that the building be demolished and reconstructed to meet contemporary fire and safety standards.[24] As at Louisbourg, in order to build a replica, original fabric had to be destroyed.

The Intellectualization of Interpretation:
The 1970s–1980s

It is in the 1970s that we see a considerable shift in Parks' treatment of historic sites coincident with the maturation of its organizational capacities. The 1970s began the third stage in the history of reconstruction in Canada. By this time a fairly large staff of specialists was on hand and regionalization had resulted in a pool of professionals in close proximity to the sites. Canadian heritage professionals were also linked by national and international organizations which kept them abreast of the latest theories and practices in their fields. By 1964 the Venice Charter had been drawn up, establishing internationally accepted methods of conservation and maintenance. According to this document, "all reconstruction work should ... be ruled out a priori."[25] In 1976 Canada, via the Canadian Parks Service, became a signator to the Convention Concerning the Protection of the World Cultural and Natural Heritage (the World Heritage Convention). By doing so, the federal government committed itself to safeguarding world heritage sites within Canada and implied that the highest possible standards of conservation would be followed.[26]

Reconstruction survived, but with significant differences. The first historic site in Canada to be entered on the World Heritage list is that of the first-known European settlement in North America at L'Anse aux Meadows, Newfoundland. Discovered by Norwegian archaeologist Helge Ingstad in 1960, it became a national historic site in 1968. Because of its significance internationally, an international research advisory committee was formed in 1970. This committee of experts from Scandinavia, Iceland, and Canada was responsible for

research and conservation at the site. Remains were carefully excavated, stabilized, and reburied for protection until later in the 1970s when Parks pursued further archaeological excavations and built replicas of the original sod houses. The difference was that, this time, the reconstructions were not built on top of the archaeological remains but at some remove in order to ensure that the remains were undisturbed.

Two of the most innovative reconstructions were carried out by Parks Canada at national historic sites in Quebec. Fort Chambly had been in federal hands for many years when Parks decided to carry out a major development of the site. It has been suggested that the volumetric reconstruction carried out at Chambly in 1982 was inspired by a similar restoration process at the Castle of Visegrad in Hungary.[27] There, contemporary materials had been used to create the broad outline of the original structure without trying to second guess what period details for which there was no historical data might have looked like. Under the direction of Parks, a private architectural firm was awarded a contract to do much the same thing at Chambly. It was felt that this sort of treatment avoided historical romanticism and potential falsification, while rescuing the ruins from further deterioration in a manner which lent itself to public interpretation. In this way both conservation and interpretation could be achieved legitimately.

Another approach to volumetric reconstruction has been implemented at the Forges du Saint-Maurice. This site had been acquired by the provincial government in the 1960s. Some archaeological investigation and stabilization had taken place by the time that Parks took it over in 1973. After several years of research and evaluation, a complex development plan was formulated in 1981 which made use of a variety of interpretive methods. These, implemented over a period of several years, include a volumetric reconstruction of the blast furnace complex which uses a three-dimensional space frame to express the industrial processes which took place within the original structures.[28] The ruins and underground spaces are enclosed but visible to the public, while the transparent frame traces the shapes of the major components of the complex aboveground. More literal replicas of significant machinery have also been built using contemporary materials and placed at historical locations. Although volumetric reconstruction is a technique which has been utilized at other historic sites, perhaps the best known of which is the Benjamin Franklin house in Philadelphia, the approach used at the Forges is much more complex in its attempt to illustrate a process rather than the simple outline of a building.

A second major project produced a historical reconstitution of La Grande Maison (1990) which, like Fort Chambly, visually suggests the original building on the exterior while providing a modern interior used as an interpretive centre. The latter responds to an expressed public wish for a more traditional reconstruction. Great care has been taken to protect archaeological remains and to distinguish between original and re-created structures.

This last project brings the outline of reconstruction at CPS sites up to the present. Reconstruction has always been a hotly debated procedure. While purists like Ruskin would have none of it, many others have accepted it under certain terms. These historically focussed on the degree of accuracy with which original buildings were replicated. More recently, issues such as unity of style (should a building be reconstituted to reflect only one era in its longer history) and the need for visible distinctions between original and new fabric have become determining factors in the manner in which reconstructions are carried out.

Several things become clear from tracing the history of reconstruction. One is the ongoing popularity of reconstruction as an interpretive tool both with the public and with politicians. Secondly, there is a traceable economic influence threading its way through this history. Put simply, more ambitious projects are generally undertaken when large amounts of money are available. Barring another Public Works Construction Act for the 1990s, our present atmosphere of fiscal restraint may result in a more conservative approach in the immediate future. It becomes even more essential, therefore, that decisions are based on the pre-eminence of the historical artifact and on our responsibility to our history. If reconstructions are to be funded, they must argue their worth with this in mind.

The Saint-Jean Gate, Québec City. CPS photo.

Meanwhile, what value are we to place on our reconstructed sites? If you agree that this brief history has illustrated the difficulty of "raising the dead," then we must look to values other than historical accuracy in these resources. While reconstructions may still perform a valuable interpretive function as visual aids, their intrinsic value only emerges after a close visual analysis. Visually, this history shows that reconstructions reflect the spirit of their time as surely as does contemporary architecture. For instance, Viollet-le-Duc practised what has come to be called romantic reconstruction, creating evocations of a medieval past not dissimilar in appearance to early Gothic Revival architecture. In Canada the reconstructed gates at Québec City are examples of this phenomenon. Later, North American reconstructions from the 1920s and 1930s tend to look disconcertingly like the Colonial Revival designs of their time. The symbiotic relationship between reconstructions and revival-style architecture of this period is currently receiving much academic attention. Our present fascination with volumetric reconstruction and reconstitution (see the Forges du Saint-Maurice) mirrors the trend in Post-

(continued on page 20)

Officers' Quarters, Fort Anne, Annapolis Royal, Nova Scotia. CPS photo.

Raising the Dead: Reconstruction Within the Canadian Parks Service
(continued from page 19)

Modern architecture to create visual metaphors of the past. Like contemporary architecture, volumetric reconstructions are sometimes criticized for an overly cerebral wit which can undermine content.

Rather than dismissal as flawed creations akin to Dr. Frankenstein's monster, then, reconstructions deserve recognition as valid expressions of their own time and as historic documents in their own right. Given their demonstrated intrinsic value, reconstructions become candidates for preservation in much the same way that other "historic" structures do, and we must be aware of our custodial responsibility to them. Perhaps we are witnessing the inception of the fourth stage in the history of reconstruction in Canada—the era of reconstruction reconsidered.

---

[1]John Ruskin, "The Lamp of Memory" in The Seven Lamps of Architecture (London: Smith, Elder & Co., 1849), n.p.

[2]A.N. Didron, Bulletin Archéologique, Vol. 1 (1839), n.p.

[3]Quoted by William J. Murtagh in Keeping Time: The History and Theory of Preservation in America (New York: Sterling Pub., 1990), p. 18.

[4]The charter states, "intervention within the built environment may occur at many levels (from preservation to redevelopment), at many scales (from individual building elements to entire sites), and will be characterized by one or more activities, ranging from maintenance to addition." The Appleton Charter for the Protection and Enhancement of the Built Environment (Ottawa: ICOMOS Canada, 1983), n.p.

[5]Christina Cameron, Charles Baillargé, Architect and Engineer (Montréal: McGill-Queen's University Press, 1989), p. 116.

[6]Quebec [Province]. La commission des bien culturels du Quebec, Les chemins de la mémoire: Monuments et sites historiques du Québec (Québec: Les publications du Québec, 1990), p. 3.

[7]Ronald Way, Ontario's Niagara Parks; A History (Hamilton: Niagara Parks Commission, 1946), p. 267.

[8]Edward T. Williams, An Interpretation of Old Fort Niagara (Niagara Falls, N.Y: The Old Fort Niagara Association, 1929), pp. 66–68.

Volumetric reconstruction of the blast furnace complex, Forges du Saint-Maurice, Quebec. CPS photo.

[9]Ronald Way, "The Reconstruction of Fort George, 1936–1940," manuscript on file, Architectural History Branch, National Historic Sites Directorate, Canadian Parks Service, Hull, Quebec, 1973.

[10]Charles W. Jeffreys, "The Reconstruction of the Port Royal Habitation of 1605–13," Canadian Historical Review, Vol. 20, No. 4 (Dec. 1939), p. 371.

[11]Margaret Coleman, "Officers' Quarters, Fort Anne National Historic Park," FHBRO Report 88–56, manuscript on file, Canadian Inventory of Historic Building, Architectural History Branch, National Historic Sites Directorate, Canadian Parks Service, Hull, Quebec [1988], p. 8.

[12]C.J. Taylor, Negotiating the Past: The Making of Canada's National Historic Parks and Sites (Montréal: McGill-Queen's University Press, 1990), p. 116.

[13]Canada. National Archives, RG 84, Vol. 1131, FPW-2, Vol. 6, pt. 2.

[14]John Ruskin, Seven Lamps of Architecture, p. 179.

[15]Quoted in C.J. Taylor, Negotiating the Past, p. 80.

[16]Barbara Schmeisser, "The Cre ation and Development of Fort Beauséjour National Historic Park," manuscript on file, Canadian Inventory of Historic Building, Architectural History Branch, National Historic Sites Directorate, Canadian Parks Service, Hull, Quebec, 1979, n.p.

[17]Shannon Ricketts, "Museum and Caretaker's House, Fortress of Louisbourg National Park, Nova Scotia," FHBRO Report 90–304, manuscript on file, Canadian Inventory of Historic Building, Architectural History Branch, National Historic Sites Directorate, Canadian Parks Service, Hull, Quebec [1990].

(continued on page 40)

Evoking the Past or Provoking the Gods?

Some Observations on Period Reconstructions

Gordon Bennett

I begin with a confession: Not only do I try to visit Upper Canada Village [near Morrisburg, Ontario] once a year, but I have never been so proud of being an employee of the Canadian Parks Service as I was on an August day in 1984 when I first visited Louisbourg [Nova Scotia]. Indeed, my chest—such as it is— swelled with pride as I marvelled at the reconstruction and overheard one after another of my fellow vacationers say that this was the best such place they had ever visited—better even than Williamsburg.

Since my paper leans toward the "provoking the gods" side of the reconstruction debate, I am very conscious—after the above admission-of appearing to be a hypocrite. I have given this a lot of thought, and I think the only way I can rationalize the apparent contradiction is to go back and reexamine my reaction. As you will recall, I said that I was never so proud to be an employee of CPS. I did not say that I was struck by Louisbourg's great importance to our history. In fact, I'm not sure that even occurred to me. I put the value on what we had created, not on the legacy we had inherited. Indeed one might say that the latter was incidental, if not irrelevant. Paradoxically, then, it was my very enthusiasm that sowed the seeds of doubt. I ask you to think about this as we continue.

In a world where operational demands are such that there is not enough time to get day-to-day things done, let alone keep abreast of what is going on in the organization or the world outside, workshops such as this give us an opportunity to look at the larger picture in a cross-functional forum that brings together people from the sites, the regional offices, and headquarters. In the case of National Historic Sites this is doubly important, because unlike our colleagues in National Parks, we do not have a sense of organizational identity that situates us in the larger universe of cultural heritage sites in Canada and elsewhere. We reap the consequences of our lack of identity, whether in the recent report prepared by the Evaluation Branch entitled "Canadian Parks Service Special Report on Consultations with Historical Heritage Experts," which documents —unintentionally—an appalling ignorance of our program and, more importantly, a disturbing insensitivity both to history and to heritage, or in the feelings of many in CPS, particularly at the field level, that CPS senior management regards national historic sites as a minor concern.

Having just come off a long run of public consultations on the proposed CPS Policy document, I have come to the conclusion that one of the reasons why national historic sites do not figure prominently in either the public or senior management mind is that there do not appear to be significant policy issues associated with historic sites or with cultural resource management (CRM). Robert Fulford's lament "In Canada, an unexplored and unknown past remains one of our most crippling cultural problems," has not been accorded the same degree of urgency by CPS as have threats to natural areas, nor has it been translated effectively into the organization's mission. I see this workshop as an opportunity to develop a higher policy profile for historic sites. We will not resolve all or perhaps even many of the issues relating to reconstruction at this workshop, but we should all come away with an enhanced appreciation of the significant business we are in. Reconstruction raises fundamental questions about integrity, respect, value, public benefit, and understanding of national historic sites and cultural resources—the very principles upon which the CRM Policy is based. Considered in conjunction with the concept of "commemorative integrity," reconstruction pretty well covers the spectrum of CRM issues.

Any discussion on reconstruction needs to distinguish between the reconstructions we already have—some of which we've made, some of which we have inherited—and those that might be proposed in the future. Too often the debate gets couched or interpreted by proponents, opponents, or both as a direct or indirect attack on what has been done in the past. We will make little progress if the workshop conforms to this model. I think we should celebrate, not denigrate, the reconstructions we have, where it has been determined through the application of CRM that these works have heritage value, and we should acknowledge that much of the finest work we have done on a broad range of activities has been done as a direct consequence of certain reconstruction projects.

We should also acknowledge that there is a range of reconstruction activities (from large-scale projects such as Louisbourg to reconstructions of individual buildings) and that generalizations will not apply in all instances. This is why the CRM Policy directs us to proceed on a case-by-case basis.

The focus of this paper is on future reconstructions. None of what I have to say is new or original, but given the nature of our work, an acknowledgement of the value of the old and existing hardly seems to be a damning admission.

While I do not subscribe to the view expressed by architectural historian Douglas Richardson that reconstructions are "as dead as any artificially animated rubber dodo that might be mounted on a genuine skeleton from Mauritius," I don't think any of us can or should avoid careful contemplation of Northrop Frye's insight:

"The kind of preservation that we have in Williamsburg and similar large-scale open museums is in a sense almost anti-historical: it shows us, not life in time as a continuous process, but life arrested at a certain point, in a sort of semi-permanent drama. There is nothing wrong with this, but it gives us a cross-section of history, a world confronting us rather than preceding us."

If there is one key message I want to communicate, it is that in considering any proposal for reconstruction, the burden of proof must always fall on the proponent. Too often we reverse this and put the burden on those who object to the proposal. Good practice demands that the proponent consider and assess honestly the pros and

(continued on page 22)

Evoking the Past or Provoking the Gods?
Some Observations on Period Reconstruction
(continued from page 21)

cons of a proposal and describe clearly who is to be held accountable for the information on which decisions are made —for example, who loses his or her job if the visitor projections upon which a reconstruction was approved are not met. I am surprised at how superficially the issue of reconstruction is often dealt with. Until this workshop, I don't think anyone in CPS had addressed whether visitation figures supported the widely held assumption that reconstructed sites are more popular than non-reconstructed ones, or whether reconstructions were an effective medium for communicating fundamental messages. In one planning document I read, the proponent merely reproduced Section 3.5.2.5.3 of CRM and the section of the old National Historic Parks Policy on reconstruction as the policy justification. This kind of non-analysis trivializes national historic sites. But before we blame the planners or the interpreters, we must admit that real analysis of significant policy issues has seldom been encouraged. And before someone dismisses such analysis as unproductive and time-wasting, let me remind you that these are the very sort of policy issues that people in national parks rightly raise, and that debates about how some proposal might impact on ecological integrity are considered essential to sound decisionmaking. We have experienced the consequences of being less rigorous.

To me, the fundamental question that should be asked whenever a reconstruction is proposed is: What is the net heritage benefit of the proposed reconstruction, particularly with respect to the national historic significance of the site? In other words, what, if anything, will the reconstruction add to the commemorative integrity of the site? In some cases, reconstruction may result in a net loss of heritage value. For example, the Minister directed that the Rideau Canal locks [Ontario] be preserved—that is to say, be considered nationally significant—because they possessed integrity as original works. As these locks are reconstructed they lose those qualities that led to their designation; that is to say, there is a net loss of heritage value.

One of the arguments most frequently advanced in support of reconstruction is that the public likes it. This argument has broad appeal, in part because it incorporates a genuine interest in what the public apparently thinks. But there is a darker side that few want to acknowledge, and that darker side is really an echo of Flip Wilson's popular expression of the 1970s that "the devil made me do it." In other words, public demand becomes something for the heritage professional to hide behind, particularly when tough questions get asked. I really admire the head of Program and Public Relations for the Royal Ontario Museum who cut through much current marketing pap and said, "We are not in the business of adapting our product to market taste, but rather we are in the business of educating public taste to appreciate our offerings." Of course, such a view is elitist. But it is also a view that respects the public and the public's intelligence. The fact is we probably could do a much better job getting the public to appreciate our offerings. As a first step, I would suggest focussing on communicating why our sites are nationally significant and hence important to all Canadians.

Another variation on the theme of public expectations is that reconstructions and other major forms of evoking the past are done in order to give the public a better idea of what the period or the place was really like. Yet it is also true that the public would have a better perception of what the flora and fauna in each national park look like if we established zoos and park-specific botanical gardens in each national park.

In considering reconstructions, I think it essential that we consider the reasons or motivations for reconstructing. We have already discussed, if only briefly, the considerations of public demand and public education. Proponents of reconstruction might reasonably ask whether critics would argue that the reconstruction of Leningrad after the Second World War should not have taken place. My answer is that this reconstruction grew out of a passionate conviction that what had been destroyed during the war was so significant to the Soviet Union and to the world that the reconstruction symbolized something well beyond the mere re-creation of an outstanding cultural landscape. I'm not sure that any of the reconstructions we are talking about fall into that category, but if Province House [Prince Edward Island] were to be destroyed by fire, I would probably be a proponent of its reconstruction because of its symbolic significance. I rather suspect that a similar impulse led the Royal Canadian Mounted Police (RCMP) to reconstruct Fort Walsh [Saskatchewan], and I think we should respect this even though we would not be moved by the same impulse to undertake reconstruction there.

I acknowledge that my statement on Province House sounds very much like "it's OK if I like it, but not OK if you like it." My only response is that we may differ on the specific example, but perhaps we can agree on the criterion of symbolic significance.

To a very real degree, reconstructions appeal to a sense of heritage rather than to a sense of history. There is nothing inherently wrong with this, but we have always to keep in mind that the visitor should not leave sites of national historic importance with the impression that he or she has just visited blacksmithing or candle-making or bread-baking national historic sites.

Similarly, I think we also need to ask if it is a good idea for a reconstruction to become the signature feature of a site, as La Grande Maison has become for the Forges du Saint-Maurice [Quebec], the *Grande Hermine* for Cartier-Brébeuf [Quebec], and the sod buildings for L'Anse aux Meadows [Newfoundland]? To the extent that these features become the principal symbol of the site, have we not lost something or trivialized the genuine as well as the site's true significance?

Within CPS I have noted a curious reality, which I suspect is reflected in other agencies as well. As an organization we often place a higher *heritage* value on our own reconstructions than we place on genuine historic fabric. I recall being at a meeting where maintaining the "integrity" of the reconstructions at Louisbourg was considered to be the most important issue facing CPS. I left convinced that none of the proponents of that viewpoint would have accorded the same zeal to preserving the Halifax Citadel [Nova Scotia]. Clearly, we have a problem when professional staff insist on higher standards for preserving existing reconstructions or making new

ones than for preserving the real thing. There can be no better symbol of the value we attach to what we create than the pride of place accorded to the reconstructed HD-4 hydrofoil at Alexander Graham Bell NHS [Nova Scotia] while the real HD-4 is relegated to the sidelines, a virtual piece of historical detritus. At the same time, we tend to discount the heritage value of those reconstructions we did not make, but rather inherited (for example, Fort Walsh, Fort George [Ontario]). Ironically, anti-reconstructionists may place a higher heritage value on extant reconstructions than so-called pro-reconstructionists. Within heritage agencies, nothing appears to be more disposable than existing heritage interpretation. This is truly a curious phenomenon.

To a considerable degree, the impulse to reconstruct is very much part of the historic park ethos (although obviously not exclusively so). This ethos tends to value the place as an agency creation, that is to say as a "park," rather than seeing value or significance as emanating from the attributes (tangible and intangible, extant and missing) of the historic site.

There is a fascinating account in C.J. Taylor's Negotiating the Past: *The Making of Canada's National Historic Parks and Sites* that deals with the internal controversy over the reconstruction of Louisbourg. Taylor offers the interesting hypothesis that historic parks à la Louisbourg provided CPS with an opportunity to do things it would never contemplate doing in a national park such as Cape Breton Highlands [Nova Scotia] because of the "damage" that would be caused to a natural park by such a degree of intervention.

"Reconstructionists" sometimes describe those opposed to reconstructions as elitists. Underlying the elitist charge are certain assumptions, the most important of which is that there is not much that is genuine ("real") that is worth preserving in Canada and/or there isn't much significant period fabric that is under threat. To compensate, we in Canada have to re-create the past, unlike European countries, which having—apparently—escaped the scourge of two world wars and the postwar economic boom, have a lot of period stuff.

There are some 750 national historic sites across Canada, the vast majority of which are not managed by CPS. Many of these latter are among the most significant places in our human history, and almost all of them are under some continuing threat of impairment. Some 40 years ago the authors of the Massey Royal Commission Report wrote that "certain places still have the history of the past written on the very surface of the land, but this history is threatened every day with obliteration." As true as that was 40 years ago, it is even more the case today.

Given such a situation, it is difficult to argue that we should place a higher priority on re-creations at CPS-administered sites (in order to "improve" these sites) as opposed to focussing efforts toward preserving significant sites, regardless of ownership, that remain to be commemorated, or that have been designated but whose future is not secured because there is no funding.

We have worn a set of blinkers for so long that we are not even aware that over 80% of our vision of national historic sites has been impaired. We live in a world where the Rideau Canal is considered more important than the Welland Canal [Ontario], the Chilkoot Trail [British Columbia] more significant than the Canadian Pacific Railway, and Anne of Green Gables [Prince Edward Island] more important than the Château Frontenac [Québec City], even though the latter is, along with the Parliament Buildings and Niagara Falls, probably the most recognized Canadian landmark. These levels of value or significance are based solely on the grounds that we own the Rideau, the Chilkoot, and Green Gables, but not the others. Caution suggests that if our impulse to reconstruct is not kept in check, we will be condemned to managing the ersatz while others deal with the genuine. Surely we can do better than play the role of fiddling Neros in the Canadian historic sites movement.

I find it interesting that one of our issues is titled "What are the Alternatives to Period Reconstruction?" Apart from the fact that some of the listed alternatives appear to be little *less* than period reconstructions under another name, the question seems to elevate period reconstruction to an end in itself, as though if we don't have or can't have a period reconstruction, we must have an alternative. To me, the question puts the emphasis on the wrong thing and tends to reinforce the regrettable notion that we have encouraged to the effect that national historic sites are little more than half-empty or half-full containers. What we should be asking instead is: How can national historic significance be communicated effectively without period reconstructions? For example, it seems to me that a place [Fort Langley] that served as the headquarters for Hudson's Bay Company operations in the Pacific Northwest was the site of the first salmon-packing operation in British Columbia, and the site where British Columbia was proclaimed a crown colony puts a challenge to our imaginations and to interpretation that reconstruction may simply not address.

To a degree, arguments against reconstruction are often considered to be a veiled attack on the interpretation function or on the need for interpretation itself. This is unfortunate. I sometimes think that we put so much *relative* emphasis on the needs of threatened resources and on the entertainment of visitors that we don't even ask the question of whether the average visitor leaves knowing (let alone knows beforehand) why the site he or she has just visited is one of only 750 places (out of literally millions of cultural heritage sites in this country) that have been recognized formally by the Government of Canada as national historic sites. I believe that the effective communication of national significance is the biggest challenge facing the interpretation function, if not CPS itself, over the next 10 years.

If one is going to do a reconstruction, then it goes without saying that one should do it as accurately as possible. But the old argument that we won't do a reconstruction if we don't have sufficient information to do it accurately has taken a twisted turn that has led us now to the point where the existence of accurate information is considered sufficient justification for a reconstruction, provided—of course—that funds are available. Budget rather than policy has become the determining factor. People in the specialist technical disciplines—not interpreters—are often the worst offenders (i.e., strongest proponents) here, dragging out arguments that make much of science and contributions to science.

(continued on page 24)

Evoking the Past or Provoking the Gods?
Some Observations on Period Reconstruction
(continued from page 23)

There is a wonderfully symbiotic relationship between "historical accuracy" and "reconstruction." Indeed, these are the two essential ingredients in what I sometimes regard as the closest humanity has come to producing a perpetual-motion machine. It is hard not to crack a smile after 22 years of working for National Historic Sites when one reads a proposal to the effect that **RESEARCH** (always in upper-case, boldface letters) has recently come up with new information that reveals that reconstructed or restored building "A" is not entirely accurate and that, in the interests of historical accuracy, changes should be made. It is harder still not to emit an audible chuckle if the identical situation has happened before. Now, I have a high regard for historical accuracy, but I think that the exigencies of historical accuracy may often better be respected by admitting that we got it wrong, but have decided to leave things as they are out of regard for the fact that the historical truth may not even yet have been revealed to us in all its majesty, and that an identified "mistake" may have a higher pedagogical value than a "possible or even probable" truth that is subject to change in the future. In fact, I can think of no better way of exposing the public to history and to the nature of our business than by pointing out where and why we got things wrong, and why we may never get them precisely right. What a wonderful interpretive device, one that does not discourage—indeed must not be allowed to discourage—the continuing search for accuracy, one that encourages the communication of the most up-to-date information, and yet one that does not put the entire burden for perceptions of accuracy on the site's physical fabric.

Closely related to the desire for "accuracy" is the desire for "authenticity." Much is made of authenticity by proponents of reconstruction. But Louisbourg does not stink, and the lawns at Fort Anne [Nova Scotia] and Fort George are mown (and fertilized) to aesthetic (not period) standards. Herein lies a major discrepancy in the so-called "authentic historic environment" arguments that are put up to justify reconstruction and animation (which is another form of reconstruction). Generally speaking, such environments are not historic at all: they are highly sanitized to correspond to peoples' expectations.

It is important to acknowledge that many proponents of reconstruction, particularly field people, are acting out of the highest "corporate" motivation of doing what's best for their sites (as expressed by enhanced profile, greater facilities and services development, increased visitation, etc.). CPS is now reaping the harvest of the corporate values it has practiced over the last three decades. If we honestly expect field people to take seriously the latest fashion, which can be described as "mildly anti-reconstructionist," then it is essential that they and their sites not be penalized in status or classification levels because they have fewer reconstructions than some other site. This is why it is important that superintendent positions at the Halifax Defence Complex and Dawson [Yukon Territory] be classified at the same level as Louisbourg.

There is an issue that has been raised at Fort Langley that merits discussion during this workshop. A perception has arisen in the last year or so that a building or structure can be added to a national historic site where it is required for operational purposes provided that the structure is not a reconstruction and cannot be confused with a reconstruction. Some people are, in my view legitimately, concerned that inappropriate, incompatible structures will be approved whereas those that evoke the past in a manner sensitive to the site will not. I think that consideration of this leads to one of the most interesting questions that was asked during the public consultations on the proposed policy: How does one determine when a national historic site or national park is "complete"? I invite you to contemplate the implications of that question and the reasons that may have led to the question. Simply stated, are we dealing with *Canadian Parks Service* sites or parks, or with *national* historic sites and *national* parks?

Finally, it seems to me that a large part of the attractiveness of reconstructed environments is that they possess a cultural landscape quality that has broad appeal. Louisbourg and Lunenburg [Nova Scotia], Upper Canada Village and Niagara-on-the-Lake, Village Québecois d'Antan and the Historic District of Québec City offer the same thing to the visitor — a relatively coherent cultural landscape. The only difference is that in the case of Louisbourg, Upper Canada Village, and Village d'Antan, one is visiting a re-creation and—in Northrop Frye's words—"confronting the past." There is another difference: people keep going back to Lunenburg, Niagara-on-the-Lake, and Québec City, which attract more visitors than the theme parks, while the operators of the theme parks are constantly trying to devise something new (or old?) to encourage people to return. Perhaps instead of trying to make each of our sites a cultural landscape in its own right, we should be putting the emphasis on how they fit into the larger cultural landscape around them.

Gordon Bennett is acting chief, Policy and Strategic Planning, Federal Heritage Policy Branch, National Historic Sites Directorate, Canadian Parks Service, Environment Canada.

Articles about reconstruction have appeared in the following earlier issues of CRM: Vol. 2, No. 4; Vol. 12, No. 1; Vol. 13, No. 1; and Vol. 15, No. 1.

Ground-penetrating Radar— An Archeological Tool

Donnie B. Barker
Jim Doolittle

In a cooperative study conducted by South Carolina's Department of Parks, Recreation, and Tourism and the USDA-Soil Conservation Service, groundpenetrating radar was used at Old Dorchester State Park, near Summerville, South Carolina. The purpose of this survey was to locate underground remains of building foundations and resulted in the discovery of five buried structures.

In recent years, archeologists have been attempting to combine traditional survey methods with new subsurface exploration technologies to improve survey designs, efficiency of investigations, and predictability of subsurface deposits. This quest to incorporate new technology into archeological research has been partially satisfied through the use of such geophysical tools as electromagnetic induction [1], ground-penetrating radar [2], magnetometers [3], and resistivity meters [4]. These tools have, in many cases, provided archeologists with valuable information. No one method, however, will satisfy all of the archeologists' needs or will provide the desired data at all sites. The application of groundpenetrating radar (GPR) techniques have been attempted on archeological sites in various parts of the world. [5] Ground-penetrating radar is an impulse radar system that has been designed for shallow (< 30 feet), subsurface investigations. Relatively high frequency (10 to 1000 MHz), short-duration pulses of electromagnetic energy are radiated into the ground from an antenna. When a pulse encounters an interface separating materials of differing dielectric properties, a portion of the pulse's energy is reflected back to the antenna. The radar receiving unit samples and amplifies the reflected energy and converts it into the audio frequency range. Processed reflected signals are displayed on a graphic recorder or recorded and stored on magnetic tape for further study or computer processing. A continuous profile of the subsurface is developed on the graphic recorder as the antenna is guided along the surface of the ground (figure 1). Images of subsurface conditions are "burned" onto electrosensitive paper of the graphic recorder to create a graphic profile.

Studies involving the GPR have documented its nondestructive efficiency but have also shown its effectiveness to be highly site specific and soil dependent [6]. The maximum depth of radar penetration is to a large degree, determined by the electrical conductivity of the soil. Soils having high electrical conductivities rapidly dissipate the radar's energy and restrict its probing depth. The conductivity of soils is related to soil moisture content, amount and types of salts in solution, and amount and type of clays. Based on these generalizations, the radar's performance and depth of penetration are more likely to be optimum in dry, sandy soils and poorest in wet, calcareous or saline, clayey soils.

Figure 1: Photograph of ground-penetrating radar antenna being pulled by park superintendent, Charles Cumbee, along grid line at Old Dorchester State Park. Park ranger, Danny Dewees, is assisting with the antenna power cable to help Mr. Cumbee maintain a consistent speed with the antenna across the surface.

GPR has been most useful in charting the occurrence and extent of features within known archeological sites. The most tried and efficient method to record GPR data is to establish a grid across the survey area. Generally, grids are rectangular with survey flags inserted in the ground to mark the grid intersects. The grid interval is dependent upon factors such as the purpose of the survey, available time, type and dimensions of the features to be located, local ground conditions, and the desired level of detection. In most cases, the grid interval will decrease as the intensity of the survey increases. Grid intervals ranging from about 3' to 10' have been used to locate buried structural remains, hearths, and foundation walls [7], and from about 15' to 30' to define the general location of buried dwellings. [8]

After a grid has been established across a site and a grid chart prepared, passes with the radar antenna are made along one or both sides of each grid line. The radar antenna is pulled at a relatively slow (1 to 3 km/hr) but constant speed. As the antenna passes each flagged reference point, the operator electronically inserts vertical reference lines on the graphic profile. On the graphic profile these lines represent the location of the grid intersects (survey flags) and are used to chart the locations of subsurface features identified on the radar profiles.

Interpretation of the radar's graphic imagery often requires more time and effort than the gathering of data in the field. Interpretations should be verified with a limited number of probings. Results from these observations are used to correlate the radar imagery with observed features and to determine what features are being detected with the radar.

(continued on page 26)

Ground-penetrating Radar —An Archeological Tool
(continued from page 25)

Radar Survey of Old Dorchester

The 45-acre park is part of the site of the colonial town of Dorchester which was founded in 1696 by a group of Puritans from Massachusetts Bay. Dorchester was located near the head of navigation on the Ashley River and prospered as an early colonial trade and agricultural center (figure 2). Following the Revolutionary War, the town's commercial and military significance rapidly declined and by 1788 the town had been abandoned.

The GPR equipment used at Old Dorchester was the Subsurface Interface Radar (SIR) System-8 manufactured by Geophysical Survey Systems, Inc. [9] The SIR System-8 consists of a control unit, a graphic recorder, a digital tape recorder, a 30-meter transmission cable, and the model 3110 (120 MHz) antenna. The system was powered by a 12-volt vehicular battery.

A reconnaissance survey was conducted with the GPR along the west side of an earthen road which was formerly known as High Street. A 500′ by 50′ rectangular grid was established across the study area with a grid interval of 10′. The 10′ grid interval helped to economize time and was considered to be suitable for determining the general locations of major, buried structural features occurring within the study site. The grid was established using a transit and measuring tape. At each of the 306 grid intersects a numbered survey flag was placed in the ground and used as a referenced location.

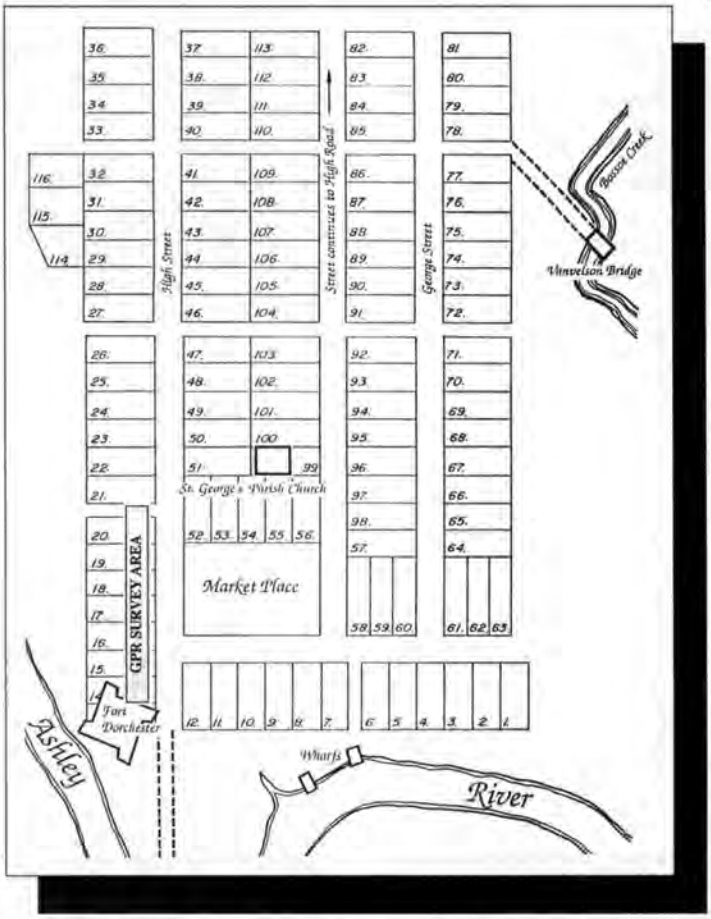


Figure 2: Samuel Stevens' 1742 map of the colonial town of Dorchester. The town was located near the head waters of the Ashley River near present day Summerville, South Carolina. The survey area included lots 15 thru 20 located southwest of High Street.

The grid of the study site is shown in figure 3. High Street is located along and runs parallel to the lower margin of this figure. A tabby fort is located along the left-hand margin of this figure. The study site was located within a relatively open, forested area. However, numerous trees and stumps interfered with the radar survey. In order to avoid these obstacles, traverses with the radar antenna were required to meander slightly. In figure 3, point symbols have been used to locate the position of trees and stumps within the study site. The tree roots produced undesired reflections on the radar profiles which often complicated the imagery and masked the presence of buried features.

Knowing the location of trees and stumps along transect lines was an aid in interpretations. In general, images appearing on radar profiles within 2′ to 3′ of a tree were interpreted as representing undesired reflections from roots. The image of a tree root often appears as an inverted "v" on radar profiles (see "C" in upper left corner of figure 4). These images were generally ignored in interpretations.

In figure 3, the location of five major structural features identified by the GPR reconnaissance survey have been plotted. The narrow, slanting delineation (labeled"B") in the lower left-hand corner of this figure represents the modern walkway into the tabby fort.

Once the general locations of the major subsurface anomalies were defined, a grid with a 5′ interval was established across the largest of the buried structures (A in figure 3). This structure was selected because of its size and the complexity of its subsurface reflections. The intensified sampling scheme enabled a more precise definition of the location and extent of the foundation which had been inferred from the complex patterns occurring on the radar imagery. The dimensions of this grid were 55′ by 60′.

Figure 4 is a representative radar profile from the detailed grid. A time and depth scale is along the right margin of this figure. The time scale is in nanoseconds (ns) and represents the two-way travel time of the electromagnetic energy. This profile has been processed through the RADAN software package developed by Geophysical Survey Systems, Inc. A horizontal high pass filter was used to remove background noise and to increase the signal-to-noise ratio.

Figures 4 contains images from the major subsurface anomaly suspected of being the remains of a former structure. Images believed to represent major, buried structural features have been enclosed in boxes. These boxes enclose images believed to represent several walls or pillars and layers of debris. Limited ground testing revealing brick foundation walls supports this interpretation. Successive traverses with the antenna along parallel grid lines revealed the presence of, what appeared to be, three buried linear features. On some of the radar profiles, interference from other subsurface anomalies

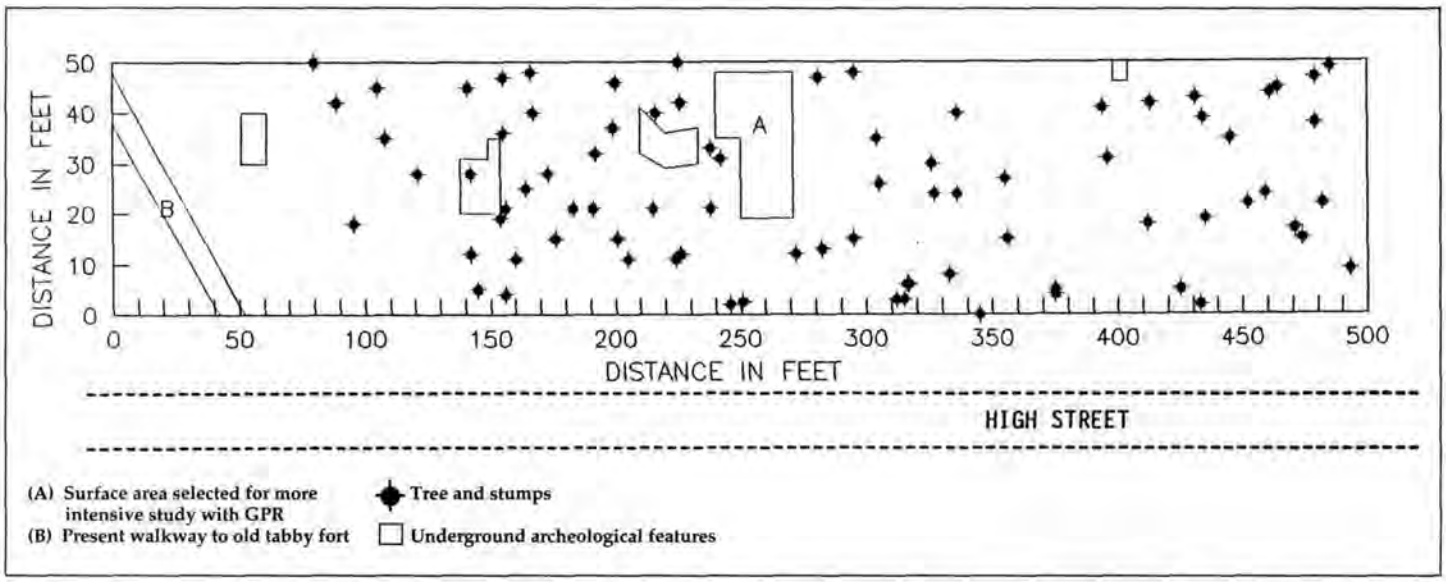


Figure 3: Diagram of 500'x 50' rectangular grid established over study plat area, southwest of High Street, on Old Dorchester State Park. Area "A", near the center, was selected for a more intensive survey with GPR.

masked these linear features. The linear features are believed to be foundation walls. The interference anomalies are believed to represent structural rubble and other cultural debris. Successive radar profiles across this area suggest the presence of a rubble filled cellar (B in Figure 4) and a shallow, disjointed anomaly (A in figure 4) which possibly represents a foundation to the former structure.

Conclusions

This paper is intended only as a descriptive site report on the application of GPR at Old Dorchester. It is hopeful that the information will be useful to the *CRM* audience. Even with the relatively high concentration of tree roots creating numerous subsurface reflections, the locations of five buried structures were discovered with the GPR. At Old Dorchester the technique appears to have been successful in locating buried brick features, wells, and other subsurface features. Future excavations, however, are necessary to produce conclusive evidence on the reliability of our ng buried brick features, wells, and other subsurface features. Future excavations, however, are necessary to produce conclusive evidence on the reliability of our interpretations.

Ground-penetrating radar techniques complement but do not replace traditional archaeological methods. Results from GPR investigations are often tentative and incomplete until interpretations are confirmed by traditional archeological methods. At this time, GPR techniques can be used to facilitate excavation strategies, to provide greater areal coverage per unit time and cost, to minimize the number of unsuccessful exploratory excavations, and to reduce unnecessary or unproductive expenditures of time and effort.

It is highly desirable that future research addresses site specific soil characteristics and the causes of anomalies. In order to move the value of GPR technology beyond the stage of qualified acceptance in archeology, more comparisons are needed between GPR interpretation of specific sites and excavation GPR interpretation of specific sites and excavation results.

References

Bevan, B.W. 1983. Electromagnetics for mapping buried earth features. *Journal of Field Archaeology* 10:47-54.

Bevan, Bruce and Jeffrey Kenyon. 1975. Ground-probing radar for historical archaeology. MASCA (Museum Applied Science Center for Archaeology) University of Pennsylvania, Philadelphia. Newsletter 11(2):2-7.

Bevan, Bruce W., David G. Orr, and Brooke S. Blades. 1984. The discovery of the Taylor House at the Petersburg National Battlefield. *Historical Archaeology* 18:64-74.

Doolittle, J.A. and W.F. Miller, 1991. Use of ground-penetrating radar in archaeological investigations. p. 81-93. In: C.Behrens and T. Sever (eds.) *Applications of Space-Age Technology in Anthropology*, November 28, 1990; conference Proceedings. National Aeronautics and Space Administration John C. Stennis Space Center, Mississippi. p. 270.

Fischer, Peter M., Sven G. W. Follin and Peter Ulriksen. 1980. Subsurface interface radar survey at Hala Sultan Tekke, Cyprus. *Swedish Annual Studies in Mediterranean Archaeology* 63:48-64.

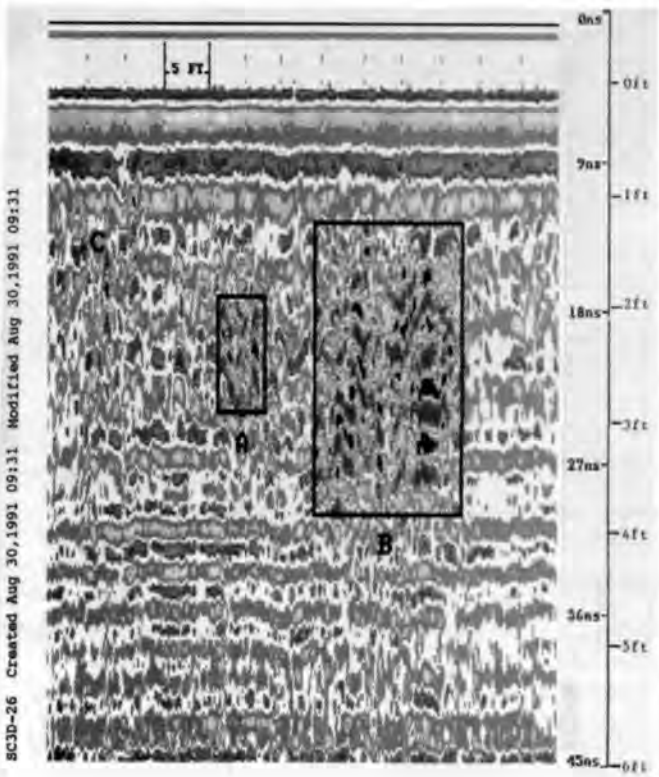
Frohlich, B. and J.L. Lancaster. 1986. Electromagnetic surveying in current Middle Eastern archaeology: application and evaluation. *Geophysics* 51(7) 1414-1425.

Imai, T., T. Sakayama, and T. Kanemori. 1987. Use of ground-probing radar and resistivity surveys for archaeological investigations. *Geophysics* 52(2): 137-150.

Parrington, Michael. 1979. Geophysical and aerial prospecting techniques at Valley Forge National Historical Park, Pennsylvania. *Journal of Field Archaeology* 6(2): 193-201.

Sakayama, T., T. M. Osada, and K. Tamura. 1988. Some examples of archaeological investigations using ground probing radar. p. 57-60. In: *Technical Proceedings of the Second International Symposium on Geotechnical Applications of Ground-Penetrating Radar.* Gainesville, Florida. March 6-10, 1988, pp. 57-60.

(continued on page 28)



(A) Radar image of possible subsurface foundation bricks.
(B) Radar image of possible cellar filled with brick rubble and debris. The image is approximately 18' wide and 4' deep.
(C) Radar image of tree roots.

Figure 4: Computer enhanced graphic profile of subsurface structure "A" in Figure 3.

Ground-penetrating Radar —An Archeological Tool
(continued from page 27)

Vaughan, C.J. 1986. Ground-penetrating radar survey in archaeological investigations. *Geophysics* 51(3):595-604.

Weymouth, John W. and Bruce W. Bevan. 1983. Combined magnetic and ground penetrating radar survey of an archaeological site in Oklahoma. In: *Digest, International Geoscience and Remote Sensing Symposium* (IGARDD'83') vol. 1, pp. 1.1-1.4.

[1] (Bevan, 1983; Frohlich and Lancaster, 1986)
[2] (Bevan and Kenyon, 1975; Bevan et al., 1984; Doolittle and Miller, 1991; Sakayama et al.,1988 Vaughan, 1986; and Weymouth and Bevan, 1983)
[3] (Weymouth and Bevan, 1983)
[4] (Imai et al., 1987; and Parrington, 1979)
[5] (Imai et al. 1987; Parrington, 1979; Sakayama et al., 1988; and Vaughan, 1986)
[6] (Doolittle and Miller, 1991).
[7] (Bevan et al., 1984; and Fischer et al. 1980)
[8] (Imai et al., 1987; and Weymouth and Bevan, 1983)
[9] Trade names have been provided for specific information. Their mention does not constitute endorsement.

Donnie Barker is the South Carolina State Parks archeologist.

Jim Doolittle is a soil specialist with the U.S. Department of Agriculture, Soil Conservation Service.

Historic Theaters—A Vital Component to Downtown Development

Victoria Hardy
Catherine L. Creager

Traditionally, downtown has been the center of it all: commerce and finance, the retail trade, manufacturing and industry, as well as entertainment and culture. As the American economy is reshaped into a service economy, many of these traditional business sectors have moved out of downtown. State and regional planning agencies continue to confront infrastructure and growth issues and local commissions grapple with assuring that their communities have adequate services and amenities. Many community leaders are counting on the arts to attract people and businesses back downtown to re-establish these vital areas and increase city revenue.

The arts have become central to development efforts because of their ability to expand daytime activity, as well as generating night life in traditionally desolate-after-five city centers. In the daytime, attendance at museums and art centers by visitors and school groups produces more customers for lunch, shopping and general spending downtown. In the evening, the performing arts bring people into downtown at a time when the businesses are closed. The renovation of downtown historic theaters offers an opportunity to not only preserve and recycle a historic building, but also to generate this kind of activity.

The development of historic theaters has produced many desirable effects for the downtown areas:

- Historic theater restorations offer entertainment for downtown professional, government, and education employees whose demographic profile generally fits the average theatergoer in education, interests, and background.
- The establishment of restaurants and other related leisure time businesses to support entertainment activities at the theater is encouraged.
- The development of an attractive community core becomes a tangible asset in attracting new business to the community and for recruiting employees to the existing labor pool.
- The development of historic entertainment districts is more attractive to the small entrepreneurial businesses (antiques, florists, wine shops) which are unlikely candidates for the franchise-oriented malls.
- As the downtowns redevelop, the buildings are being purchased by law firms, hospitals, telephone companies, and similar businesses, which find these locations more attractive than the malls.
- The balance is being restored between the major retail operations on the margins of these towns and small cities, and the need and desire of the communities to keep the downtown ambiance alive. Partnerships can be formed between the outlying businesses and the downtown district that do not impede the development of either group.

Across the country local government and business are banding together to reclaim their historic theaters. The cities and towns where these developments are occurring have populations ranging from less than 20,000 to over one million. All have their own unique contribution to make to bringing back new life to downtown.

Carlisle, PA, population 18,500, is currently working to bring back the Carlisle Theatre. Originally opened in 1939, the Art Deco structure continued to serve as a movie theater until the mid-1980s. Several years ago a citizen's group came together and decided to take over the building and renovate it. An initial fundraising effort yielded over $150,000 from individual donations. A subsequent feasibility study gave a positive forecast for the renovation and reopening of the theater and the community group proceeded with their efforts. The estimate for the renovation now stands between $1 and $3 million, depending on the extent of the renovation. Meanwhile, fundraising efforts for the theater are continuing.

As a result of the contributions and donations by local business, the building has already had some improvements including a new facade and roof. Plans call for the opening of the main auditorium within the next year and local businesses are gearing up for the return of night time activity. Recently, the last available store-

(continued on page 30)

Exterior of the Carlisle Theatre. Photo courtesy of Borough of Carlisle

Historic Theaters—A Vital Component to Downtown Development
(continued from page 29)

front in the theatre building became occupied and the downtown area is experiencing an influx of new restaurants and bars. All will be poised to provide amenities for theatre patrons.

In Wilmington, NC, the removal of the Atlantic coastline railroad in 1960 meant the loss of hundreds of jobs and the onset of tough economic times. The city-wide recession was followed by urban renewal efforts that began to destroy many of the city's older buildings. Preservation groups advocating restoration of the historic architecture intervened and were able to save many of the buildings. One of their most important victories came in 1975 with the restoration of Thalian Hall, originally built in the 1850s as an opera house. Today Thalian Hall is the area's premier arts facility and is home to 30 local arts organizations. A recent study by the local area arts council estimated that Thalian Hall, together with other Wilmington cultural organizations, contributes about $5 million to the local economy.

In the mid-70s, community leaders embarked on an effort to completely renovate Thalian Hall. A bond issue was secured to help finance the project that evolved over 13 years and cost $5.5 million. The renovation, completed in March of 1990, ensures that Thalian Hall will remain a downtown anchor as it has been for most of the city's history. The facility is a major tourist draw, not only for its variety of programming (over 600 events each year) but for its grandeur. The hall remains open to visitors six days a week and is a frequent stopover for real estate agents and their out-of-town prospects. In a town with a population of slightly over 45,000, Thalian Hall programs drew almost 80,000 in attendance last year.

In Tampa, FL the recent plight of downtown was very similar to Wilmington. In this city with a population of 272,000 another historic theater has played a significant, but very different development role. The Tampa Theatre was originally constructed as a silent movie house in 1926 with expectations that it would act as a people magnet for the downtown area. The theater served its purpose well—providing entertainment for shoppers, other visitors, and downtown workers. The theater's peak of popularity came in the 1940s and there was a significant downslide in the 1960s when many Tampa residents began to leave downtown for the suburbs. The theater, once a model of ornate movie theater architecture, was finally closed in 1973 after years of neglect.

The future of the Tampa Theatre did not seem very bright, but city planners were looking for a means to bring life to the downtown area and the abandoned theater offered a strategy for achieving this goal. As source of entertainment and education for residents of the area, the theatre offered the greatest potential for spurring new development. In 1976 the city took ownership of the Tampa Theatre and began efforts to restore it. To date, the renovation of the theatre, including new electrical, air-conditioning and sprinkling systems, has cost $1.6 million. Additional work is expected to add another $.5 million to the total project cost.

Following the theater's re-opening, outside investments once again flowed into downtown real estate. By offering programming of an eclectic mix of independent, foreign and classic films, the Tampa Theatre acts as a key element in the cultural mix of the city.

Perhaps the best known historic theater project is Playhouse Square Center. The Center is the keystone of a redevelopment effort that encompasses six acres located close to the downtown business district in Cleveland, OH. The project has been led by the Playhouse Square Foundation, a non-profit organization that is also responsible for programming in the three theaters. Together, the Ohio, the State, and the Palace Theatres offer more than 7,000 seats and feature a range of programming that includes popular entertainers, touring Broadway, local resident arts groups, and children's shows.

The restoration of the three theaters and five lobbies, and construction of a new stagehouse was completed in 1988 at a cost of $37.7 million. Playhouse Square Foundation received considerable support and backing from the public and private sectors for the project. The City of Cleveland and Cuyahoga County were instrumental in the securing of three Urban Development Action Grants (UDAG's), which contributed

Lobby of the renovated Tampa Theatre. Photo © George Cott/Chroma, Inc.

greatly to the capital funds that were necessary to renovate the theatres. The grant money was part of $21.6 million in public money, and an additional $19.1 million from private sources was raised. Cleveland is now reaping the economic benefits of its investment in Playhouse Square Center. The Center draws an annual attendance of 750,000 people and expends over $10 million into the economy each year.

Of course, these projects are very complex and there are many obstacles endemic to preservation and downtown development. Project timelines can surpass 10 years depending on the scope and efforts to secure funding. For example, Cleveland Playhouse Square Center took more than a dozen years from inception of the idea to the completion and re-opening of the last theater. The Woodland Opera House restoration in Napa Valley, a high visibility project because of the tourism incentive, took a decade of dedicated community volunteer work to convince the state and the county to support this project with the necessary funding. The funding situation in the last five years has been further complicated by changes in the tax laws that no longer encourage commercial use of these properties.

The range of problems can include:

- A proposed development that is overpriced for the capital dollars available for restoration/renovation. Do you use gold leaf or dutch metal for the decorative work in the building? The difference can be hundreds of thousands of dollars.
- Market and programming for the finished complex that has not been carefully thought out, and any possibility of long-term operating deficit that looms over the financing of the project. It is critical to professionally analyze the regional market for the proposed programs in the building and to assess the impact of the operations and maintenance on budget.
- Lack of professional staff engaged early on in the project's development can create difficult problems that may endanger the long-term success of the theater. For example, a community volunteer at one renovation project had meticulously chained shut all of the exit doors to the theater, except those in the main lobby, before a sold-out event with over 2,000 patrons. The volunteer wanted to make sure that all the patrons exited past the concessions stand. Fortunately, an alert visiting theater manager noticed the problem and had the doors unchained before disaster struck.
- Public funding over a several-year cycle is subject to the vagaries of the political process and the condition of the local economy. This has become particularly obvious over the last two years, where several major projects have already contracted by city governments (Sacramento, CA, among others), have been stopped by the results of elections and referendums.

These hurdles do not mean, however, that we need to reconsider the initiation of these projects. John Naisbitt and Patricia Aburdene challenged us in Megatrends 2000 (Morrow, 1990) to consider the role of the arts and culture in our society for the next 10 years:

In the final years before the millennium there will be a fundamental and revolutionary shift in leisure time and spending priorities. During the 1990s the arts will gradually replace sports as society's prime leisure activity. This extraordinary megatrend is already visible in an explosion in the performing and visual arts that is already underway:

- *Since 1965 American Museum attendance has increased from 200 to 500 million annually.*
- *The 1988-89 season on Broadway broke every record in history.*
- *Membership in the leading chamber music association grew from 20 ensembles in 1979 to 578 in 1989.*
- *Since 1970 U.S. opera audiences have nearly tripled.*

From the United States and Europe to the Pacific Rim, wherever the affluent information economy has spread, the need to re-examine the meaning of life through the arts has followed.

Exterior of Playhouse Square Center. Photo courtesy of Playhouse Square Foundation

It would appear that Naisbitt and Aburdene's predictions are being played out in cities and towns of all sizes. Wilmington, Tampa, and Cleveland are not alone in their efforts-Kalamazoo, MI; Chillicothe, OH; Decatur, IL; Medford, OR—all are joining this movement. The League of Historic American Theatres in Washington, DC, the national service organization for historic theaters, experienced an increase in membership from 180 members to over 500 in the five-year period between 1985 and 1990. This growth verifies the importance of historic theater projects, and points to the future relevance of historic theaters to the life we lead.

Victoria Hardy is a principal of AMS Planning & Research Corp. in Rockford, MI. Catherine Creager is a consultant in AMS's Southport, CT office. AMS is a managment consulting firm that provides services in the areas of facility development, cultural planning, and research in the arts and entertainment industries. Thanks to Fred Bean, Borough of Carlisle; John Bell, Tampa, FL; Tony Rivenbark, Wilmington, NC; and, Playhouse Square Foundation, Cleveland, OH for help with this article.

Fort Sumter—Preserving its Crumbling Walls

James N. Ferguson

Fort Sumter sits atop a man-made, rock island guarding the mouth of Charleston Harbor. Its slowly subsiding walls appear as little more than shadows of the once impressive pentagonal, three-tiered, masonry fort designed by the Board of Engineers in 1829. It was part of an elaborate coastal defense system devised by Brigadier General Simon Bernard and Major Joseph Totten. Charleston, South Carolina was considered a firstorder city by the Survey of Coastal Defenses: one the enemy might occupy for the war and cause great injury to the country. When the Civil War broke out on April 12, 1861, Fort Sumter immediately became the symbol of a divided nation.

Major Anderson's heroic stand resulted in him being promoted to Lieutenant General in the Union Army, despite having lost the fort to the Confederacy. General Beauregard was given greater command within the Confederate Army as a result of his victory in the 36-hour pitched battle. Union General Gillmore wanted nothing more than to capture the fort and waged three great bombardments with the aid of Admiral Dahlgren and his fleet of ironsides. By War's end, Fort Sumter had been greatly reduced — "a pile of rubbish," in General Gillmore's opinion, but still the 320-man garrison held its ground despite having only one serviceable cannon. The South had been less successful in its defense of Richmond, Virginia, and Atlanta, Georgia. On February 18, 1865, the fort was quietly evacuated. On April 14, exactly four years after Major Anderson had been forced to surrender the fort, a ceremony was held in the parade ground commemorating the official end of the Civil War with the former Major on hand for the raising of the original garrison flag.

Stress fracture in casemates along the left flank wall. Photo by Jack E. Boucher for HABS, National Park Service.

The Southeast Regional Office of the National Park Service, in conjunction with Fort Sumter National Monument, have undertaken the task of stabilizing its masonry walls and casemates. The Historic American Buildings Survey (HABS) was commissioned to prepare a set of existing condition drawings with supplemental large-format photographs to form a basis for the restoration efforts.

The HABS team consisted of five members which included James Ferguson, supervising architect; Richard Naab, project foreman; and architectural technicians Peter Stehrer (ICOMOS-Austria), Ned Stork and Wayne Williams. The large-format photography was carried out by HABS photographer Jack Boucher.

The team prepared a set of 24 drawings which included plans, sections, elevations, axonometrics of the three basic casemate types, and various details which highlighted the masonry construction. Interpretive drawings were also included in the set which pieced together the original appearance of the fort from the over 100 sheaves of engineering drawings, on file in the National Archives, chronicling the construction of the fort from 1829-1861. A physical history report was done that included the construction of the fort as well as subsequent reconstruction efforts, the construction of Battery Huger which today dominates the parade ground, archeological excavations carried out from 1951 to 1959, and the present condition of the fort.

The large-format photography was in part keyed into previous photographs taken by Jack Boucher in 1959. This work was expanded to include thorough documentation of the exterior walls, not included in the HABS drawings, and aerial photographs.

The HABS work will be incorporated into a Historic Structures Report currently being prepared by the Southeast Regional Office. Several important issues arose during the documentation process that will need to be developed further in the HSR. The most problematic issue concerns the subsiding walls.

Heath Pemberton did a comparative analysis of several resources in his 1959 report to determine the degree of settlement in the foundation. As early as 1855 subsidence was noticed by Lieutenant Kurtz who was supervising the construction. It was considered an urgent matter by General Totten who recommended no further construction be done until a thorough investigation was carried out. Settlement tests were undertaken but the foundations seemed to have stabilized.

No further studies were documented until 1951 when it was determined that between 1901 and 1951, a drop of 4.67′ at the right shoulder angle and a drop of 4.43′ at the right gorge angle had occurred. Mr. Pemberton noted in his report that this was in part due to the seepage from the cracks in the walls causing much water to filter out under the base of the walls. It should also be noted that these two angles are to the seaward side of the fort which was rebuilt following the Civil War and is most vulnerable to tidal action and severe storms.

Concrete bulwark known as Battery Huger, built 1898-99. Photo by Jack E. Boucher for HABS, National Park Service.

Over 100,000 tons of stone were used in forming the foundation atop a sand shoal. It did not appear that caissons or any other method was used in stabilizing the shoal in the drawings that were studied. Physical investigative work will need to be done to determine if the granite and ballast stone foundation has any form of underpinning.

The water level has risen over the years. This will affect the subsidence measurements which were taken. USGS reference points exist on the parapets of the walls and are noted in the field notes of the HABS Field Recording Project.

Only 21 of the original 82 casemates remain. The nature of their construction was that they were mutually supportive. The lateral thrusts of the vaults were in part carried by the adjacent vaults. The casemates formed a ring at both the first and second tier. The remaining first-tier casemates are partly bolstered by the earth fill introduced at the time of the construction of Battery Huger. At the salient angle the three radiating casemates are rapidly deteriorating due to an entire section of casemates along the left face wall having been destroyed during the Civil War. The large degree of settlement in the foundation has also affected these casemates, as has water seepage through the cracks which may have been initially caused by the weight of the second-tier casemates and enlarged during the War.

A unique feature of Fort Sumter is the use of concrete in the embrasures, or gun portals, of the casemates. Four molded blocks were fit into a 6′ x 8′ aperture, with a wrought-iron lining, in the 5′ thick scarp wall.

Concrete was used extensively in the construction of the fort. It was used with an oyster-shell aggregate in the foundations as well as in the scarp walls. Captain Bowman revised the foundation plans in 1841 to use a system of granite stretchers supporting the piers of the casemates. The sub-floors of the casemates were rammed concrete and oyster shell with flagstone pavers forming the surfaces.

Battery Huger has a tremendous visual impact on the fort but its floating foundation system rests on the parade ground, making only minimal contact with the foundations that support the masonry walls. This massive concrete bulwark was built between 1898 and 1899 in response to the anxieties which arose as a result of the Spanish-American War. The line of defense along the Atlantic coastline was seen as particularly vulnerable to a naval attack, since the coastal forts had been allowed to fall into a terrible state of disrepair.

Fort Sumter was once a proud example of military architecture and the most powerful symbol of the Civil War, but today is a mere shadow of its former stature. Its preservation and interpretation is vital to a thorough understanding of the events which led to the outbreak the most devastating war in American history. The fort remains the single-most recognizable monument of the Civil War, prompting the Southeast Regional Office and Fort Sumter National Monument to undertake the necessary efforts to stabilize the masonry walls and casemates. The HABS drawings, large-format photography and historical report will serve as a basis for the restoration efforts.

A series of reports were prepared by historians for Fort Sumter National Monument between 1949 and 1959 which include:

Babington, John, "Fort Sumter: 1876," March 1, 1954.

Barnes, Frank, "Fort Sumter: December 26, 1860 and April 12, 1861," November 23, 1949.

Barnes, Frank, "Fort Sumter: April 7, 1863," February 21, 1950.

Comstock, Jr., Rock L., "Fort Sumter: 1899," June 8, 1954.

Luckett, William W., editor, "Fort Sumter Excavations, 1951-59," August 7, 1951 - May 13, 1959.

Pemberton, Jr., Heath L., "Fort Sumter: Chronological Construction History with Architectural Detail," September 21, 1959.

Interpretation and the Historical Archeology of the Civil War

Dana Holland

Increasingly, many who are involved with archeological investigations are realizing that what constitutes history in site reports, articles, and public presentations is affected by what questions are asked of the data. Archeological investigations can simply identify and document past activity at a discreet location or they can hook up a particular site with broader social, economic, and political themes. Likewise, in public exhibits what counts as a full explanation of the past is variable. Exhibits can limit explanatory scope to descriptions of activities and events or they can hook up particular examples of life in the past with themes affecting all of society.

The traveling exhibit entitled, "The Civil *War* Between the States," was produced through a cooperative agreement between the University of Maryland and the National Capital Region of the National Park Service. The exhibit describes historical archeological investigations in three parks: Antietam National Battlefield, Manassas National Battlefield Park, and Harpers Ferry National Historical Park. It communicates the results of archeological research to the public, bridging the gap between research and ongoing interpretive programs as well as creating a link between the three individual parks. Most importantly though, the exhibit does not stop with site descriptions, but provides visitors with both a historical as well as a modern-day context for making meaning of the facts.

The title of the exhibit, "The Civil *War* Between the States," joins two related but distinct cultural constructs of the same historical event—*The Civil War* to northerners was *The War Between the States* to southerners. The title linguistically represents the geo-political opposition North versus South, introducing the idea that multiple perspectives can exist on what was the past. The point of the presentation is to "unpack" issues that are often subsumed under the North/South opposition or that are neglected by military historical perspectives.

The exhibit has three sections. The "Historical Archaeology" section describes how meaning and significance are made out of material remains. Archeologists are concerned with understanding social history and are not merely technicians who make artifact identifications and locate structures.

The "National Parks" section describes the current social significance of the national parks. The primary point in this section is that history is the meaning and significance that we give it. Simply because a battle was fought at a particular location does not mean that we have to remember it or associate the land with it. Land occupied by Native Americans for thousands of years and by other Americans for hundreds of years is commemorated as a battlefield today for cultural reasons that are themselves worthy of discussion and reflection.

The "Historical Archeology" and "National Parks" sections are included as contextual tools that viewers can use to understand and evaluate the rest of the exhibit. The third section located in the center is the historical substance of the exhibit. Here, the North/South opposition gets "unpacked," and the conventionally assumed, often implicit military/civilian distinction loses its validity. The area is arranged around three anthropological themes—ethnicity, class and community life, and economic and social changes brought about through the rise of industrial capitalism. Archeological projects in the parks illustrate the themes.

The objective of the traveling exhibit is to present alternatives to what is considered meaningful about Civil War history in other venues. For example, rather than describing troop movements on the "battlefield," it addresses the rural communities whose lives and land were transformed by the social conflict of which the battle was a manifestation. It is written and organized to actively engage viewers to consider the multiple and complex implications of past events. The intended result is to redefine the relationship between the park visitor and park interpreters to be more of a dialogue. Visitors may then realize the effects that the past, or more exactly, the effects that our current understandings of the past have on social life today.

The exhibit describes specific excavations in relation to social themes about people's lives and events in the past in order to prompt visitors to question assumptions about the substance of Civil War history, particularly the usefulness of the military view. It also prompts viewers to think about why we bother to remember, research, and present particular things about the past.

The exhibit communicates how our understanding of social history in the national parks continues to be explored and elaborated today through archeology. The interpretive perspective taken in the exhibit is similar to that described by Sandra Weber in "Interpreting Our 'Cultural Ecosystem'" (*CRM Bulletin* Vol. 13, No. 9). Weber proposes that prehistoric and historic events should not be presented as isolated "islands of the past," but should be understood and presented as products of historical processes that created the world in which we now live. In the traveling exhibit the past is presented through human actors and social interaction, and it then becomes more than a chronological list of events: what we now call history is the diverse people, communities, and ideas that were in the past.

The temporary exhibit medium has proven to be an effective means to convey the dynamic nature of the parks and to thematically integrate park units which are typically isolated from each other. This type of free standing, portable display unit is affordable and allows quick, inexpensive exhibit production. Additionally, temporary exhibits complement permanent passive and active interpretive programs in the parks, highlighting current research activity and topics of contemporary relevance. For further information about the exhibit, or for technical advice about the project, contact Dana Holland, c/o Dr. Stephen Potter, National Capital Region, National Park Service, 1100 Ohio Drive, SW, Washington, DC 20242.

Dana Holland is a research associate with Science Learning, Inc., Annapolis, MD, a firm specializing in audience research and exhibit evaluation.

Washington Report

Capitol Contact

Bruce Craig

Palo Alto Battlefield National Historic Site

With all the attention the preservation of Civil War sites has received in recent months, it is easy to forget about the other battlefields the National Park Service also preserves and administers. In late June, however, President George Bush signed legislation expanding the boundary of the only unit of the national park system related to the Mexican-American War—Palo Alto Battlefield National Historic Site.

Fought on May 8, 1846, the battle of Palo Alto was the first major engagement of the Mexican-American War. It and another at Resaca de la Palma the next day resulted in resounding defeat of the Mexican army. The war continued when American armies invaded present-day New Mexico, California, and Mexico. The 1848 Treaty of Guadalupe-Hidalgo ended the hostilities and fixed the southern boundary of the United States, which secured an enormous land mass including all or parts of the present states of California, New Mexico, Arizona, Colorado, Nevada, and Utah. Perhaps equally important, the war exacerbated the North-South sectionalism that eventually resulted in the American Civil War.

Congress authorized Palo Alto Battlefield National Historic Site in 1978 with the enactment of P.L. 95-625. Even though the battlefield's national historic landmark boundary encompassed approximately 6,000 acres, the National Park Service was constrained by a provision in the law that restricted land acquisition to 50 acres. Sponsored by Representative Solomon P. Ortiz (D-TX), the legislation the President recently signed (P.L. 102-304), authorizes $6 million for land acquisition and establishes a "resource based" boundary encompassing approximately 3,400 acres. The new law also directs the National Park Service to enter into cooperative agreements with Mexico for joint research and planning for not just the Palo Alto battlefield but other Mexican-American War sites.

Hopewell Culture National Historical Park

On May 27, 1992, President Bush signed P.L. 102-294, legislation redesignating Mound City Group National Monument as Hopewell Culture National Historical Park and expanding the area by approximately 762 acres.

Mound City Group National Monument was established in 1923 to preserve and interpret the remains of the Ohio Hopewell, a culture that thrived in the Ohio River Valley from 100 B.C. to A.D. 500. In 1980, legislation was enacted that expanded the monument by 150 acres. The bill the President signed into law adds four more sites to the park and requires the Secetary of the Interior to study an additional three sites for possible future inclusion.

If you would like additional information on either of the legislative initiatives discussed above, drop me a note at: National Parks and Conservation Association (NPCA), 1776 Massachusetts Avenue, NW, Suite 200, Washington, DC 20036.

Interior Museum Property Program Update

Ann Hitchcock

In early December, the Department of the Interior (DOI) completed the review and evaluation of its systems of management controls as required by the Federal Managers' Financial Integrity Act of 1982 (FMFIA). In his December 13, 1991, cover letter transmitting the FMFIA report to the President, the Secretary of the Interior identified six issues as "the most critical weaknesses" facing the Department. One of the six is "Lack of accountability and control over art and artifacts and other museum properties." The National Park Service (NPS) has a major role in leading the Department's new effort to improve the management of museum property.

In April 1991 a task force, with representatives from all bureaus, was formed to guide the effort. Under a Memorandum of Understanding with the Department, the NPS was authorized funding and four staff to coordinate the work of the task force.

In September 1991, the Department issued interim standards for management of museum property together with a request for completion of a museum property survey. For the first time, the Department would know the size of its museum property collections. Of the 1400 units responding to the survey, 753 indicated that they house museum property. DOI bureaus manage 37 million objects and more than 12,000 linear feet of historical/scientific documents. An additional 32 million objects are known to be in non-bureau repositories. Of the 37 million objects held by the bureaus, 31 million are archeological, and the remaining 6 million are history, biology, paleontology, geology, ethnology, and art objects.

The NPS reports the largest museum property collection. The Bureau of Land Management reports the largest number of museum objects held in non-bureau repositories. Of the objects held by bureaus other than NPS, over 80% are reported in five states-California, South Dakota, Colorado, Arizona, and Montana.

It is expected that this first assessment under-reports the total amount of museum property held by the bureaus. As documentation and management of the collections improve, the estimate will be refined.

Following issuance of interim guidance on writing Scope of Collection Statements (SOCS) in March 1992, task force representatives have been drafting bureau-specific guidance to assist units with museum property in preparing SOCS. Draft SOCS are due November 16, 1992.

The Fish and Wildlife Service (FWS) has a draft bureau-level guidance document and a draft unit-level SOCS that were issued with the DOI interim guidance as models to assist other bureaus. The wide range of programs managed by FWS make its models particularly useful as references for the staff of other bureaus and units as they develop their own documents.

Over the past few months, the Interior Museum Property Project staff has drafted a new part to the Departmental Manual (411 DM) and an accompanying handbook providing Departmental guidance on the management of museum property. The task force met April 1-2, 1992, to review the draft 411 DM and Museum Property Handbook prior to issuance for field review. At the recommendation of the task force, all Departmental mandatory requirements and reports are described in the DM with elaboration on the DM requirements, recommended procedures, and sample forms included in the handbook. Field review of the DM and the handbook is underway, with comments due in September 1992. Bureaus are encouraged to modify the Museum Property Handbook, when issued in final, to meet bureauspecific needs. These bureau-specific handbooks would then be issued to field units for implementation of the new procedures.

By May 1992, units with museum property had each completed a Checklist for Preservation, Protection, and Documentation of Museum Property. The results have been automated and preliminary reports issued to the executive oversight committee and task force.

(continued on page 36)

Interior Museum Property Update
(continued from page 35)

The checklists will assist the field units and bureaus in developing plans and cost estimates to bring museum property collections up to Departmental standards.

In 1991, four three-day training sessions were conducted to introduce bureau participants to the new museum property management program and the Departmental interim standards. Each session provided participants with background on the museum property management program and hands-on case studies on museum property documentation, preservation, and protection. The participants also visited NPS storage repositories to gain an understanding of storage, security, fire protection, and documentation procedures. A total of 88 persons attended.

Three two-week training courses will be offered January to April 1993 to introduce the Departmental Manual and the Museum Property Handbook which will be issued in December 1991. The sessions will be held at the NPS Western Archeological and Conservation Center in Tucson, AZ, where most of the 1991 training was held.

In early 1993, the bureaus will develop long-range plans and cost estimates to bring the bureau museum property collections up to Departmental standards. For the first time the Department will have an overview of its museum property management needs and a plan to address those needs.

Ann Hitchcock is the chief curator of the National Park Service.

Preservation Resources

Thomas Jefferson's Poplar Forest Restoration Field School

Travis C. McDonald, Jr.

Poplar Forest is the villa retreat designed, constructed and lived in by Thomas Jefferson. Jefferson chose his remote 5000-acre Bedford County plantation as the site for his second home. Construction began in 1806 and Jefferson began living there as early as 1809, although parts of construction continued until 1826. He visited this house between two and four times a year. The unusual octagonal house and its highly ornamental landscape represent the mature designs of Jefferson. It was not another Monticello; it represents the private world of Jefferson and his mature ideas. Through the years, rebuilding and alternations obscured the true form and details of Jefferson's villa. After a five-year project and an intensive two-year physical investigation, the full significance of Jefferson's creation has been revealed. It is one of his most ideal and clearly expressed architectural works and one of the most overlooked landmarks of American architecture.

Travis McDonald and Andrew Ladygo, second and third from left, reviewing the restoration work with students from the restoration field school.

The Corporation for Jefferson's Poplar Forest began in 1984 to rescue the house which had been used domestically until 1979. The corporation's intention has been to achieve the highest standards in restoration work. From documentary research and emergency stabilization through landscape archeology and architectural investigation, the process has been one of model methodology. Because of its commitment to education, the corporation heavily subsidizes the cost of the field school so that students and professionals can learn from this project.

Between 8 and 10 participants are accepted into the intensive 14-day program. Instruction is given by the Restoration Coordinator Travis McDonald and Architectural Conservator Andrew Ladygo. Program participants comprise a wide range of interest and experience, including undergraduate and graduate students, architects, craftsmen, conservators, historians, and architectural historians. Candidates must have a genuine interest in the restoration process and a related career path.

The program's focus is on the restoration process using a comprehensive and ideal sequence of parts. Training and education consist of the theory and practice of museum quality restoration as seen through one site which is undergoing that process for the first time. Poplar Forest itself acts as the laboratory where hands-on training is given for environmental analysis and emergency stabilization techniques, investigative surface mapping, laboratory analysis of materials, investigation documentation, and architectural conservation of materials and artifacts. Other relevant sites in the region provide opportunities to see other stages of inprogress restoration. Additional program components include historical research and interpretation, computerization of research and evidence, the process of historical and landscape archeology, and the theory, practice and philosophy of architectural restoration. While many of these components can be considered as actual training experiences, the entire program covers all aspects of a restoration, providing a valuable overview of the process and the administrative organization.

Local News

Making Property Owners Aware of Historic District Status

Stephen A. Morris

Baltimore's Commission for Historical and Architectural Preservation (CHAP), the city's historic preservation agency, was recently reminded of the importance of ensuring that property owners in historic districts are made aware of the special status of their property and the obligations that go with it. In 1991, the Commission was rebuffed by the Maryland Court of Appeals in its attempt to impose criminal sanctions on a property owner who refused to alter a new house in a historic district to bring it into compliance with historic preservation requirements established by CHAP *(Belman v. Maryland)*. The court ruled that the criminal sanctions provision of the local preservation ordinance was meant to be narrowly applied and could not be used against a property owner who had purchased a property without any knowledge of the preservation restrictions and obligations that went with it.

In response to this situation, CHAP conducted a study of the methods used by historic preservation commissions in communities around the country to notify owners that their property is in a historic

district. The following list, adapted from a memorandum prepared by Rieyn DeLony for CHAP, summarizes some techniques and strategies in use for this purpose. This information will be of interest to commissions around the country which may be struggling with this issue. The list is reproduced here with permission from CHAP. It would be advisable for a preservation commission interested in adopting a particular technique to consider how effective it might be in their own community and to consult with the city or county attorney as to its legal sufficiency before implementing it. For further information on CHAP's study, please contact Kathleen Kotarba, Executive Director, Commission for Historical and Architectural Preservation, Charles L. Benton Jr. Building, Suite 1037, 417 E. Fayette Street, Baltimore, MD 21202; 410-396-4866.

CHAP List of Methods of Making Property Owners Aware of Historic District Status

The methods listed below have been ranked according to ease of implementation and effectiveness.

1. Work with local realtors to inform and educate the real estate community about historic district properties and what historic district status means.
2. Include historic district status in real estate multiple listings.
3. Send annual notice (list of addresses and maps) to local title companies, real estate agencies, and relevant public agencies to advise of all designated addresses.
4. Mail Notice of Historic District Designation and commission information with annual tax bill.
5. Mail Notice of Historic District Designation and commission information with annual water bill or new water account bill.
6. Mail annual commission newsletter to all historic neighborhood associations notifying/reminding owners of record (and tenants if possible) of historic district designation, guidelines and permit requirements (through use of tax records database).
7. Mail neighorhood association newsletters containing guidelines and contact information to all property owners in that district.
8. Notify owners by letter of each state of designation process, including notice upon passage of ordinance.
9. Form neighborhood association "welcome committees" to distribute commission guidelines to new homeowners.
10. Include stories on preservation projects going on in the city in real estate sections of major newspapers.
11. Prepare zoning overlay of historic district status (does not affect current use permitted by existing zoning; would appear in title searches, multiple listings, and would be disclosed as a type of zoning).
12. Design and erect markers at the boundaries of historic districts by each neighborhood association.
13. Establish a city awards program for owners who have done significant preservation work on their property.
14. Create legislation to require recordation of ordinances establishing historic districts among local land records.
15. Request state historic preservation officer to obtain an opinion from the state board of realtors on the issue of whether historical district status is a material fact that must be disclosed and when it should be disclosed.
16. Monitor property sales through Tax Assessor's Office and mail notice of historic district status to new owner.
17. Insert a historic district status notation into Assessor's property computer records so that when new owner comes to record/transfer deed, they are notified and told to see commission.
18. Record certificate or memorandum of designation in the land records of the city or county.
19. Annotate deeds of properties in historic districts with historic district status and reference to local preservation commission ordinance.
20. Create legislation to require legal disclosure by realtor of historic district designation prior to contract.
21. Modify commission ordinance to include language regarding monitoring transfers of property in violation of commission regulations and requiring notice to listing real estate agent and/or new buyer of violations and need to conform.
22. Create legislation to require seller to inform buyer of historic district status prior to contract.
23. Offer tax incentive for donating historic district easement in agreement between owner and city that would be recorded.
24. Create homeowner associations for all the existing neighborhood associations with covenants running with the property that would have to be recorded and disclosed at settlement.

Stephen A. Morris is a preservation planner in the Interagency Resources Division, National Park Service, Washington, DC.

Viewpoint

Interpreting Slavery—A Response

Kay D. Weeks

With the exception of a *CRM* in 1990, (Vol. 13, No 3. 1990), the last *CRM* (Vol, 15., No. 4, 1992) is the only other time the subject of Black slavery has been discussed as part of the ongoing NPS cultural resources management forum. I refer to "Interpreting Slavery—The Kingsley Plantation Example" by Paul Ghioto and Brian Peters.

Since it is the first *CRM* article to outline the history of slavery at a specific site as well as to suggest an overall approach and attitude for interpreters to adopt in general, it is an important essay that should lead to further discussion and debate among cultural resource managers and historians.

First, in my opinion, the difficult subject of slavery is cushioned in Ghioto and Peters' description of life at Kingsley Plantation, perhaps simply because of the authors' selection of facts and an absence of interpretation. For example, the article states that Zephaniah Kingsley's writing "advocate(d) more humane treatment of slaves...and that "he had an African wife, originally purchased as a slave," but later moved to Haiti where his descendants could live by "some law less absurd than color." While the article itself focuses on interpretation, i.e., an analysis of issues, the article defines slavery at Kingsley Plantation in terms of information.

As Marcella Sherfy [1] said in her article, "Honesty in Interpreting the Cultural Past" (1990 Vol. 13, No. 3), "interpreting...means that we must **listen** to the people of the past in all records and sources we can find and then **repeat** (not twist or cull or exaggerate) their words and thoughts." To apply Ms. Sherfy's advice to the Kingsley Plantation example, in the absence of the exact (or any) words of the slaves at Kingsley, it is unfair to draw conclusions about their lives based solely on the journals of their master.

Second, daily plantation life at Kingsley is described as the slaves performing welldefined units of work ("the task system"), then being allowed by the master to use the evenings to work in their gardens or enjoy craft skills (i.e., independent, for-profit, actions). This, in turn, led to underground economies where slaves could eventually purchase their freedom.

(continued on page 38)

Interpreting Slavery–A Response
(continued from page 37)

Limited to the factual surface of the Kingsley story, I must admit *my mind began to create a parallel picture of what the slaves did at Kingsley Plantation, and what Park Service employees do in their daily work lives at this moment in history. They work according to well-defined "critical elements," then have time in the evenings to putter in their gardens, or work on craft projects, etc. By serving for years, they eventually purchase their freedom, called "retirement."*

The problem in presenting an emotionally loaded subject—slavery—from one point of view and so dispassionately is that soothes away what might otherwise be a shared sense of indignation and, in its place, inspires a false analogy such as the one outlined above. What's wrong with discussing the inhumane institution of slavery in general while telling a specific story? Or overtly raising issues of its long-term consequences? Without some understanding of the moral issues involved, how can the audience ever move beyond a partial denial of its occurrence? Or become engaged by the property's historical significance?

Third, Ghioto and Peters' article acknowledges that the NPS has had little experience in interpreting slavery; this, as well as the call to interpreters, historians, and researchers to participate in the "new and exciting effort" at Timucuan Preserve should be applauded. On the other hand, I was confused reading the other half of the sentence having to do with little experience in interpreting "slavery, a broad social institution which is often misunderstood..." This, to me, meant that while some people might feel pain and anger about the subject of slavery, if it is explained satisfactorily, a deeper understanding may permit at least partial acceptance of past inhumane actions. The authors need to clarify just what about the institution of slavery is **misunderstood,** both at Kingsley Plantation (a precise historical context) and beyond. Full exploration of a subject should be encouraged by presenting information from different perspectives, rather than narrowing information and limiting the potential for dialogue.

Fourth, I disagree that an audience "comfort-level" norm can be achieved. AfricanAmericans in the audience aren't going to feel as comfortable as the interpreters who control the story. History needs to be explicated clearly, I agree, and "with sensitivity," as the authors also suggest. But how such "sensitivity" is conveyed is not made clear.

This reader came away from the short article with the sense that Kingsley was a man who used people to do his work and who owned his wife, but was much nicer than some other slave owners.

The authors may not have intended to convey that scenario, but when a story about slavery is told exclusively on an "informational level," and from the slave owner's point of view, the only lesson learned is that a real interpretation has been side-stepped. While Black visitors may feel a continuing sense of betrayal, still others may end up feeling that, indeed, slavery isn't as bad as they initially felt on a gut level. As Sandra Weber [2] said in her article in CRM, Vol. 13, No. 3, "Interpreting Our *Cultural Ecosystem,*" "Just as we can no longer ignore the damage we have done to the environment, we can no longer hide from the mistakes and embarrassments of our political and social history. By helping visitors to understand, evaluate, and possibly ameliorate past mistakes, they may be able to leave slightly more palatable desserts for future generations to consume."

Finally, I question the thesis that "the slavery theme" should be handled the same way as "standard interpretive programs," that is, "allowing the public to draw its own conclusions." Because a public conclusion was, in fact, drawn more than a century ago, the institution of slavery could well be openly condemned, irrespective of specific site information. Undeniably, the inhumane actions of our predecessors have consequences for today's society. Failure to acknowledge the historical ugliness of slavery as well as its resulting scars may well injure an interpreter's credibility. When National Park Service interpreters present stories about America's ancestors-especially when it involves those whose voices were suppressed—they need to go beyond information derived from academic research and the partial evidence available from material remains to a level where respect, fairness, and a strong sense of humanity provide an important emotional balance.

[1] Marcella Sherfy is the State Historic Preservation Officer for Montana

[2] Sandra Weber is the cultural resources interpretive specialist, Division of Interpretation, NPS, WASO

Kay Weeks is a technical writer-editor in the Preservation Assistance Division, National Park Service, Washington, DC.

Bulletin Board

Works in Progress

The Preservation Assistance Division of the National Park Service is preparing several new Preservation Briefs. The staff welcomes any information from CRM readers on the various subjects, and especially photographs of repair or rehabilitation projects. Contact the Preservation Assistance Division, NPS, P.O. Box 37127, Washington, DC 20013-7127, or call 202-343-9578. Topics include: clay tile roofs (Anne Grimmer); slate roofs (Sharon Park); ornamental and stained glass (Michael Auer); interior paint (Kay Weeks); barrier free access (Thomas Jester); emergency stabilization (Sharon Park); neon (Michael Auer); sandstone (Charles Fisher); architectural investigation (Timothy Buehner); and landscape furnishings (Charles Birnbaum).

Lectures on Protecting Collections

"Disaster Prevention, Response, and Recovery: Principles & Procedures for Protecting & Preserving Historic/Cultural Properties and Collection" is the title of a meeting to be held October 24-25, 1992, in Cambridge, MA. Over 30 internationally renowned speakers will include conservation scientists, conservators, historic architects, fire safety and building code engineers, and specialists in insurance and disaster protection and recovery products and services. All of the lecturers are involved with safeguarding historic/cultural works and sites from damage and loss caused by natural and human-induced hazards. For more information contact Technology & Conservation, One Emerson Place, 16M, Boston, MA 02114; 617-227-8581 or 617-997-0046.

REAP Training

A new training course on Rapid Ethnographic Assessment Procedures (REAP) is being offered by the National Park Service's Applied Ethnography Program. Introduced will be new time- and money-saving research techniques for park planning and program evaluation which will facilitate working with Native American, African-American, Hispanic, and other diverse ethnic groups to develop cultural information, review planning alternatives and

impacts, and identify cultural and natural resources significant to peoples traditionally associated with parks. The session will be held at Jean Lafitte National Historical Park and Preserve in New Orleans, LA from September 13-18, 1992. For further information, contact Miki Crespi, 202-343-8156.

Information Requested

Repair of vandalism to rock art sites is being researched by the University of North Dakota. The types of damage sustained include spray-painted graffiti, scratched initials, incised additions to ancient motifs, and bullet holes resulting from the use of sites for target practice. Some treatments have been recommended by professional conservators, but the majority in use can best be described as "home remedies." In an effort to improve both conservation awareness and the options open to agencies dealing with such situations, the University of North Dakota has prepared a questionnaire to be sent to persons responsible for the maintenance of rock art sites. For more information or a request for the questionnaire, contact J. Claire Dean, Archaeological Field Conservator, University of North Dakota Archaeological Research—West, P.O. Box 669, Belfield, ND 58622; 701-575-4074.

Free Brochure

Emergency Preparedness and Response: Federal Aid for Cultural Institutions During an Emergency is a 16-page brochure that outlines the types of Federal assistance available to museums, libraries and archives, historic preservation organizations, historical societies and conservation organizations during an emergency. A free copy is available on a firstcome, first-served basis, from the National Institute for the Conservation of Cultural Property (NIC). Send a self-addressed, stamped envelop ($.52) to Emergency Preparedness, NIC, 3299 K Street, NW, Suite 403, Washington, DC 20007; 202-625-1495.

Bridge Available

The former New York, New Haven, and Hartford Railroad Bridge across the Fort Point Channel must be replaced to accommodate the construction of the new Seaport Access Road (I-90 extension to Logan Airport) for the Central Artery/Tunnel Project. Because the bridge is eligible for listing in the National Register of Historic Places, the Massachusetts Highway Department (MHD) is seeking interested parties able to remove the bridge for reuse elsewhere.

The railroad bridge, an overhead counterweight Scherzer Rolling Lift bascule bridge, erected between 1898 and 1900, was one of the first of its kind to be built outside of Chicago. It consists of three parallel doubletracked steel through truss leaves that carry six railroad tracks across the Fort Point Channel to the South Station terminal. Although the bridge remains in active railroad service, it is no longer operable as a drawbridge, and the original operating mechanisms have been removed.

The MHD is seeking information as to parties that are interested in removing the bridge and relocating it to another location. A final determination as to an acceptable new location for the railroad bridge will be made by the MHD and the FHWA in conjunction with the State Historic Preservation Officer.

For more information, contact the Massachusetts Highway Department, One South Station, Boston, MA 02110, Attn: Procurement Department/Bridge Removal.

RECOGNIZE AN OLD FRIEND

In the National Register of Historic Places

Your historic home, neighborhood, or even the "Mom and Pop" grocery store on the corner, may be eligible for listing in the National Register of Historic Places. Listing in the National Register of Historic Places provides recognition for buildings, sites, districts, structures, and objects important in our shared heritage. From the vernacular farm houses of the American heartland to archeological sites, from Central Park to Main Street—the National Register of Historic Places lists properties of local significance as well as state and national significance. National Register recognition can help to maintain the unique heritage and character of our communities. Any person can prepare a National Register nomination form and submit it to the State Historic Preservation Officer.

Basic requirements for preparing a National Register registration form include:

- writing a physical description of the property;
- documenting the property with photographs;
- conducting research to discover when the property was constructed, who occupied the property, what changes have been made over time, and other facts about its history;
- writing a narrative about why the property is significant and how it relates to the area where it is located;

The National Park Service offers a free starter kit to help you prepare a National Register nomination including:

National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation;

National Register Bulletin 16A: How to Complete the National Register Registration Form;

National Register Bulletin 39: Researching a Historic Property

National Register forms

To obtain the starter kit, send your name and address to:

NR Starter Kit
National Register of Historic Places
Interagency Resources Division
National Park Service
P.O. Box 37127 (413)
Washington, DC 20013-7127

New Guide to Tribal Cultural Programs

Discover Indian Reservations USA: A Visitors' Welcome Guide, edited by Veronica E. Tiller, $19.95 416 pp. paperback, Council Publications, 1999 Broadway, Ste. 2600%CERT, Denver CO 80202-5726, 800-848-4909, Ext. 3858

Discover Indian Reservations USA presents detailed information about what there is to see and do on Indian reservations throughout the lower 48 states. Locator maps show the reservations in

(continued on page 40)

A New Roof For Arlington House
(continued from page 8)

necessary. The skill and craftsmanship of the workers combined with a knowledge of modern roofing practices produced a roof that can be interpreted as part of the history of the house while serving for an extended time with a minimum amount of maintenance.

Sharon C. Park, AIA, is the senior historical architect with the Preservation Assistance Division of the National Park Service in Washington, DC. She is the author of a number of Preservation Briefs and provides advice to historic building owners on appropriate preservation techniques. She worked as part of the preservation team to design and detail the installation of the new roof for Arlington House.

Raising the Dead: Reconstruction Within the Canadian Parks Service
(continued from page 20)

[18]A.J.B. Johnston, "Preserving History: The Commemoration of 18th Century Louisbourg, 1895–1940," Acadiensis, Vol. 12, No. 2 (Spring 1983), p. 65.

[19]Quoted in ibid., p. 78.

[20]Mabel Ringereide, "Canadiana Village," Canadian Collector, Vol. 11, No. 4 (July/Aug. 1976), p. 24.

[21]James De Jonge, "Ten Buildings, Fort Walsh National Historic Park, Saskatchewan," FHBRO Report 88–68, manuscript on file, Canadian Inventory of Historic Building, Architectural History Branch, National Historic Sites Directorate, Canadian Parks Service, Hull, Quebec [1988].

[22]C.J. Taylor, Negotiating the Past, p. 145.

[23]Ibid., p. 179.

[24]Ibid., p. 173.

[25]ICOMOS Canada, Preserving Our Heritage: Catalogue of Charters and Other Guides (Québec: International Symposium on World Heritage Towns, 1991), p. 14.

[26]Marc Denhez, "The Heritage Untreaty," Canadian Heritage, Vol. 13, No. 1 (Feb/Mar. 1987), p. 2.

[27]George Galt, "The Battle for Fort Chambly," Canadian Heritage, Vol. 10, No. 1 (Feb/Mar. 1984), p. 13.

[28]Francois Leblanc, "Les Forges du Saint-Maurice ... We've seen this before. No, not really. Have a closer look...," APT Bulletin, Vol. 18, Nos. 1 & 2 (1986), p. 13.

Shannon Ricketts is an architectural historian with the Canadian Parks Service of Environment Canada.

New Guide to Tribal Cultural Programs
(continued from page 39)

each state. The write-up for each reservation gives a brief profile of the tribe and then enumerates pow wows, festivals and tribally owned museums, heritage centers and businesses on the reservation. It offers restaurants, hotels, campgrounds and gaming centers geared toward tourists and records other businesses that offer tours of their operations. Opportunities range from the Ysleta Street Festival in El Paso to "Unto These Hills," a drama staged in Cherokee, North Carolina; from Ski Apache in New Mexico to Menominee Logging Museum in Wisconsin; from Ute Mountain Tribal Park to Miccosukee Culture Center and Indian Village in Florida. It is also an excellent reference guide to anyone interested in tribal cultural programs nationwide.