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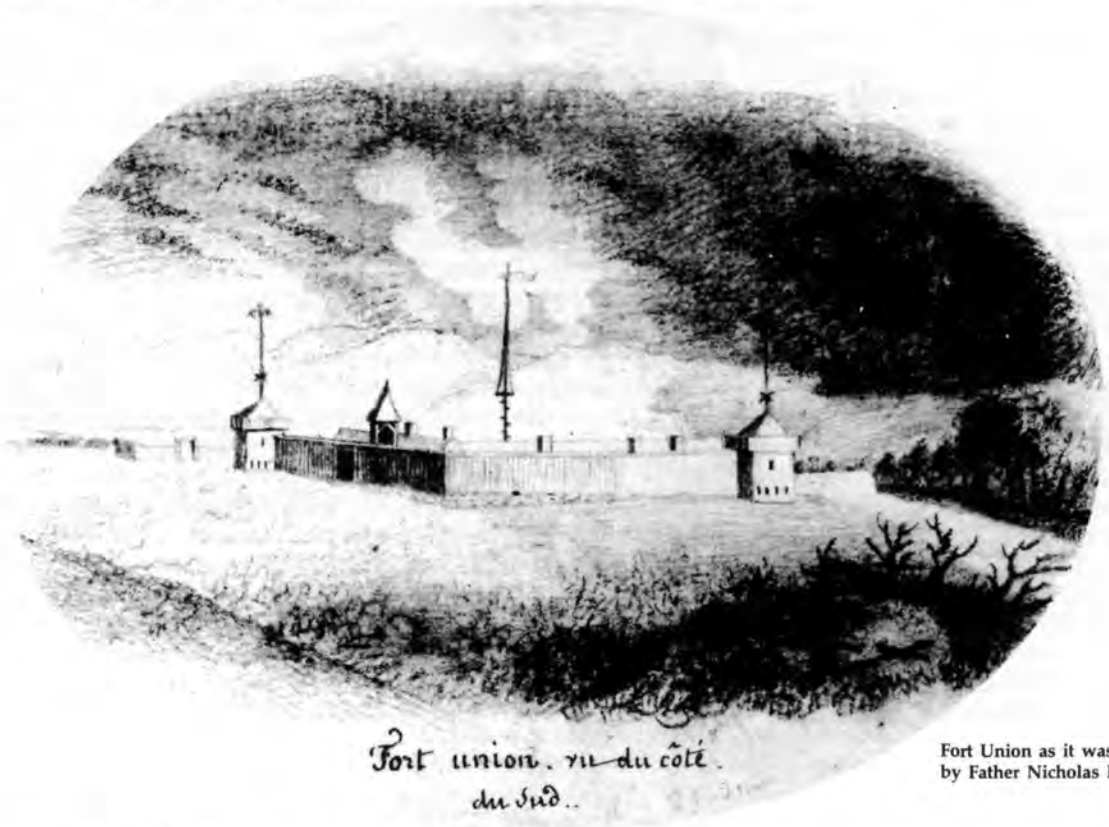
The Great Reconstruction Controversy: A Debate and Discussion

Reconstruction: The act or process of reproducing by new construction the exact form and detail of a vanished structure, or part thereof, as it appeared at a specific period of time. (NPS-28, *Cultural Resources Management Guideline)*



Fort Union as it was seen in 1847 by Father Nicholas Point, S.J.

The February 1989 *CRM Bulletin* carried an article by William J. Hunt, Jr., titled "The Fort Union Reconstruction Archeology Project." Dr. Hunt's article, a positive account of the project and its benefits, prompted a thoughtful letter from archeologist Paul R. Huey of Cohoes, New York. Noting that the excavation entailed an irreversible commitment of an important archeological resource, Dr. Huey questioned the decision to reconstruct Fort Union Trading Post. The *Bulletin* invited Hunt's response, and Hunt complied with an equally thoughtful and candid account of the Fort Union reconstruction saga. Both letters are reproduced below. A general historical overview of National Park Service reconstruction policy and practice by NPS Bureau Historian Barry Mackintosh follows the letters.

Dear Editor:

I greatly enjoy reading your excellent *CRM Bulletin*, and I think it performs a very great service for government agencies as well as the private sector. I was quite interested in the article in Volume 12, Number 1, by William J. Hunt on the Fort Union reconstruction project. Many questions came to mind about the general preservation policies and priorities of the National Park Service, and I realize they are difficult questions which have been discussed many times at great length. I was wondering in particular, however, about the interpretive value and preservation philosophy of the approach which appears to have been used at Fort Union, as a publicly-owned and protected historic site.

Because such a reconstruction unavoidably requires major destruction of the archeological resources, wouldn't it have been preferable to preserve as much of the archeological evidence as possible? Carefully planned, limited excavations to answer specific questions could have provided useful data in order to build a diorama or a model, perhaps, for a comprehensive interpretive exhibit. Historical knowledge of a site based on archeology is a matter of degree and is never absolute. Archeology, like documentary research, can never answer all questions, just as it is impossible ever to recreate perfectly the past. But by totally excavating such a site it appears to me we have permanently and irreversibly committed the fragile finite remains of Fort Union, depriving future archeologists of any opportunity to conduct additional excavations of the same areas, to ask different research questions, or use improved or technically advanced methods. The reconstruction of Fort Union of necessity must have been highly conjectural.

It seems to me that, once located by testing, the various structures of Fort Union might have been simply outlined on the ground in a manner that related to a model or a diorama on display in an interpretive center. It would not be necessary to try to find the location and size of every brick and nail for this interpretive approach. As it is now, how will the conservation, analysis, detailed study, reporting, and publication of the artifacts and data from such an extensive excavation ever be properly funded and completed except superficially? Moreover, this extensive excavation of a protected site was evidently conducted under adverse working conditions with a large number of untrained and inexperienced but dedicated volunteers (which, of course, sounds very public-spirited), as a result of which future archeologists will forever be unable to uncover and study the evidence under perhaps improved controls and conditions and with, one assumes, refined research questions. Are there not equally important sites which cannot be saved because they are in the path of private development where this amount of time, effort, and money would be more appropriate because valuable historical and archeological data need to be rescued?

Finally, it seems to me that a physical reconstruction of a site such as Fort Union, apparently occupied from 1828 to 1867, implies that there was only one Fort Union, from its beginning to its end. Actually, of course, such sites continually evolved and changed during their periods of occupation. So does one reconstruct the Fort Union of 1830 or the Fort Union of 1860? How does one decide? Because a reconstruction so often is based on such arbitrary decisions, excluding or including this or that feature or time period, it seems to me the historical reconstruction process is folly except, perhaps, in certain off-site experimental situations. History, in my estimation, needs to be interpreted as a process of change and development, not as a single static moment in time. It would be better to interpret information about a variety of real physical remains, as the existing evidence of change and adaptation. When as much of the undisturbed evidence as possible is preserved for selective study, future scholars may see things we cannot see, and they may have entirely different interpretations of it. For our own current needs, therefore, surely it should not be necessary for us to consume or disturb and destroy all or most of the evidence at a given site. Also, one might ask why original, authentic historic structures should be preserved if historic structures can be reconstructed and if the reconstructions are as good as (maybe better than) the originals. What do reconstructions teach the public about preservation and the value of saving real, original structures?

I realize none of the issues I have raised are new ones, and they have surely been debated many times. There may be no answers to some of these questions. But I am curious about how a decision to make such an irreversible commitment of cultural resources is made in this day and age of careful attention to cultural resource management. Archeological resources are finite, just as our limited, finite supplies of oil and other natural resources. "Management" means they should be used sparingly, a little at a time, not voraciously consumed in large amounts. Somewhere I once read that preservation and use together equal conservation of finite resources. Excavating and uncovering most or all of a protected historic archeological site does not seem like a conservation approach to that resource. Copies of articles, policy statements, or other literature on this issue would be of interest to me if available.

Sincerely,

Paul R. Huey

Dr. Paul Huey is Senior Scientist (Archeology) for the Bureau of Historic Sites, Historic Preservation Division, New York State Office of Parks, Recreation and Historic Preservation.

Letter to the Editor:

As an archeologist who has been in the profession for about 15 years, I certainly have no problem in expressing great sympathy with all of archeologist Paul Huey's observations in his recent letter. Every issue he raised (plus many more) have been energetically debated within the National Park Service at virtually every level of the organization during the past few years. By its very nature, the Fort Union reconstruction project has been a difficult one from a variety of perspectives: political, economic, interpretive, ethical, scientific. These are very important issues within the arena of cultural resource management and cannot be easily ignored.

First, I would like to clear up an apparent misconception on his part which relates to my use of Volunteers in Parks during the excavations. VIPs served only as a supplementary work force at Fort Union. The project was well founded upon a large cadre of highly trained, professional NPS excavators who (at a minimum) held a B.A. degree in anthropology. With a few exceptions, all had numerous seasons of field experience behind them before they came to work at Fort Union. Volunteers always worked in tandem with one of these professionals and were under constant supervision.

I would also like to point out that I agree with Dr. Huey's assessment of NPS historic site interpretation. I believe that the parks would benefit from the processual perspective that the anthropological approach offers. Unfortunately, the interpretive approach generally followed at these parks is exactly that which Huey describes. It appears to be an ingrained characteristic of NPS interpretation and will probably not change in the near future. The continuation of the interpreters' focus upon a "typical" year or the "high point" in a site's development is a reflection of the general absence of anthropological training within the upper echelons of the NPS.

The majority of the issues raised by Huey relate to NPS policy for interpretation and reconstruction as well as archeological ethics. Although these issues are extremely complex, I believe I can address many of his concerns by providing a brief administrative and interpretive history of the Fort Union site.

The plan to reconstruct Fort Union has been an active goal of many North Dakota and Montana citizens for over 60 years. Although a rebuilt trading post has always been supported as a means of promoting public education about early western history, one of the driving forces (if not *the* major factor) behind this proposal was the irregular nature of the region's economy, based upon agriculture and the exploitation of dwindling deposits of crude oil. To the local community, the dream of Fort Union's reconstruction has held promise for tourism, and thus for jobs and increased revenues during hard times.

The original proposal to rebuild Fort Union appears to have been made in 1925. The residents of the nearby town of Mondak depended upon agriculture, the sale of liquor to the citizens of North Dakota (a dry state), and the railroad. Early in the 1920s, the railroad shut down its Mondak station, prohibition put an end to its largest and most consistent revenue source, and the region's farmers were suffering through another devastating drought. The reconstruction was seen as a means of preserving the dying town's existence by drawing tourist dollars from passing passenger trains.

During the late 1920s and early 1930s, various people spent a great deal of time and energy trying to get some governmental agency (including the NPS) to acquire the site. The local citizenry finally convinced the State of North Dakota to buy the site in 1939. During its 25 years of stewardship, the State Historical Society of North Dakota continued to promote the reconstruction goal. Fortunately for the site's archeological resources (given the way reconstruction was usually implemented in the 1930s), funds were never allocated by the state government for this purpose.

When the NPS acquired the site in 1965, it willingly embraced reconstruction as the best means of interpreting Fort Union. By the 1970s, however, conservation of archeological resources became the new ethical standard for the Service, and reconstruction was increasingly discouraged. The archeological site was interpreted much in the way that Dr. Huey suggests. Structures were outlined with ropes and signs were provided for each identifying its function within the post. The positions of the fort palisades were made visually apparent with unmown strips of grass. A model of the fort was prepared and used to explain how the fort was built and how various elements functioned. Nevertheless, these interpretive devices were never considered anything more than temporary by many in the NPS who believed that Fort Union could not be interpreted adequately without the public actually being able to see and feel the physical structure itself.

Of course, the NPS interpretive position was wholeheartedly embraced by the region's citizens, and they were able to exert pressure to make the reconstruction a reality. Pressure focused upon the Congress resulted in legislation passed in November 1978, calling for a reconstruction study for Fort Union. This document (completed by historians, architects, and archeologists in the Rocky Mountain Regional Office in 1979) indicated that an abundance of historical documentation was available for Fort Union's structures. Detailed descriptions were provided in a variety of journals, letters, and published works. Further, many views of the structural complex (inside and out) had been made by numerous artists and photographers during the nearly 40 years of its existence. The fort was particularly well documented between 1851 and the fort's destruction in 1867. On this basis, 1851 became the time specified for any future reconstruction effort. Further, archeological testing between 1968 and 1972 indicated that subsurface structural preservation was very good. Therefore, archeology could (and later did) provide many of the then unknown architectural details (such as dimensions of structures and structural elements, method of construction, and hardware) necessary for an "authentic" reconstruction effort.

The final push to reconstruction came with the return of economic hard times to the Fort Union region. With the collapse of the oil market and the agricultural crisis in the early 1980s, the political forces of Montana and (particularly) North Dakota were able to coalesce into a very powerful entity. As a result, the NPS was required to initiate the reconstruction of Fort Union in 1986.

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As Dr. Huey has pointed out, from the ethical perspective of cultural resource conservation and preservation, testing and conserving the majority of the site was the clear course to take. Many within the NPS archeological community (including myself) tended to favor this option. As reconstruction was inevitable, the NPS Midwest Archeological Center (MWAC) promoted test excavations at Fort Union and subsequent construction of the fort near its original location but not on the site of its actual foundations. This was also the approach favored by the North Dakota State Historic Preservation Officer, the Montana State Historic Preservation Officer, and the Advisory Council on Historic Preservation.

Unfortunately, reconstruction on-site has been NPS policy since 1975. Further, some within the NPS considered off-site reconstruction to be an "absurd" option (several told me so directly) because the reconstruction "would not be believable" from the perspective of the lay person unless it was situated directly upon its historic site. The recommendation of the archeologists was further hampered by the time frame demanded by Congress. So little time was available for project planning that archeological concerns and suggestions were unable to move very far up the administrative ladder. Within weeks of MWAC's proposal, a decision was made by NPS Director William Penn Mott, Jr., to reconstruct Fort Union on its original site.

Early in the planning process, the staff at the regional office believed there was no remaining obstacle to Fort Union's reconstruction. Their stated position was that the site had been excavated in 1968 and 1972 and that no elements of any importance remained. MWAC quickly pointed out (and proved during the 1986 excavations) that there was considerable evidence for many important subsurface elements at the site; excavations there had either consisted of tests or had not been continued to culturally sterile levels. The only recourse was the total excavation of those site elements which were scheduled for construction and destruction.

As noted in my article, these excavations took place between 1986 and 1988, often alongside the construction. As an aside, I certainly think that the archeology could have contributed much more to the reconstruction if it could have been planned and carried out prior to the actual construction rather than coinciding with it. The NPS historical architect responsible for design and implementation of the reconstruction agrees with this perspective. Delay would have also allowed a more considered approach to the fieldwork and analysis, thereby allowing the archeologists to contribute much more to our present and future understanding of the fur and robe trade society. However, we can't always have things the way we want them.

The Fort Union reconstruction project has had both its bad and good components. On the negative side, much of the nationally important archeological resource at Fort Union Trading Post National Historic Site has been destroyed. On the positive side, the public now has a beautifully and carefully reconstructed mid-19th century fur/robe trading post to visit. From the archeological perspective, we have learned a great deal about Fort Union during the past several years. The immense database derived from those efforts will allow students of the American fur/robe trade to continue to learn even more during the years to come. Further, significant portions of the site (including most of the 1829-1832 fort structures and the post-1832 dwelling range, ice house, store range, courtyard, outbuildings, and other subsidiary features) remain intact. All of these resources (the extant portions of the site, the archeological data, and the material culture) will continue to represent a viable and extremely important research base for decades to come.

I have outlined a program of research and publication which, if fully funded, will take up to 10 years to complete. The result will be a variety of publications directed toward a wide range of the American public (including children and adults, historians, anthropologists, and archeologists). With the completion of the excavations, however, I have to admit that there have been funding delays during the transition between fieldwork and laboratory work. These delays have resulted in the loss of several key researchers and the majority of the laboratory staff, and have brought the laboratory work and analysis to a virtual halt. Nevertheless, I have been assured that the NPS intends to stand by its promise to provide the funding necessary to meet its reporting and curation responsibilities and is currently looking for a means to financially support this program.

I hope that I have been able to respond to some of the more important issues that Dr. Huey has raised. I am not a proponent of reconstruction in our Nation's parks and I don't expect that view to change. Nevertheless, from an overall perspective, I believe the positive contributions at Fort Union Trading Post have outweighed the negative.

Sincerely,

William J. Hunt, Jr.

Dr. William Hunt is supervisory archeologist, Midwest Archeological Center, National Park Service.

To Reconstruct or Not to Reconstruct: An Overview of NPS Policy and Practice

Barry Mackintosh

Fort Union Trading Post National Historic Site is only the latest battleground on which reconstruction adversaries have clashed. Reconstruction has probably aroused more controversy over the years than any other cultural resource management activity of the National Park Service. Surely in no other realm have outside pressures been more keenly felt nor has practice diverged more obviously from policy. Typically, local community interests, aided by their elected representatives and often abetted by park personnel, have favored reconstruction projects; CRM professionals in Washington, citing policies they have forged, have resisted; and management decision-makers have come down on whichever side has seemed more likely to serve both the public interest and their personal survival.

Avid anti-reconstructionists have sometimes gone so far as to claim that the NPS, being a preservation organization, has no business undertaking reconstruction, which is not preservation but the creation of new structures simulating old ones. Unfortunately for their case, the Historic Sites Act of 1935 explicitly authorizes the bureau to "restore, *reconstruct*, rehabilitate, preserve, and maintain historic or prehistoric sites, buildings, objects, and properties of national historical or archaeological significance . . ." (emphasis supplied). And the National Historic Preservation Act of 1966 as amended in 1980 defines preservation to include reconstruction.

The Historic Sites Act was intended to sanction and support the greatly expanded historic preservation program on which the Service had lately embarked. That program was inevitably influenced by Colonial Williamsburg, the Nation's foremost preservation project of the time, which embraced reconstruction on a grand scale. At George Washington Birthplace National Monument, acquired by the NPS in 1930, the Service completed a rendition of the long-vanished house in which the first president was born. At Colonial National Monument, another 1930 addition, the Service reconstructed key earthworks on the Yorktown battlefield. At Morristown National Historical Park, established in 1933, the Civilian Conservation Corps reproduced typical soldiers' huts of the Revolutionary War. Even before the remains of Hopewell Furnace became a national historic site in 1938, the CCC was employed under NPS supervision to reconstruct several features of that Pennsylvania ironmaking complex.

Some of these reconstructions, initiated by outside forces or inspired by demands for Depression relief projects, were less well conceived and executed than they might have been. The Washington's birthplace project, sponsored by a well-connected private association, proceeded with little evidence of the original house and less regard for what evidence existed. The resulting "memorial mansion," as it was euphemistically called, barely resembled the birth house and was found to be on the wrong site. This and other early experiences caused NPS officials to take a more restrictive stance by the mid-1930s.

At the second meeting of the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments in 1936, NPS Chief Historian Verne E. Chatelain argued for interpretive alternatives to reconstruction at sites lacking physical remains. Reconstruction could entail an unwarranted focus on one time period at the expense of others, he felt: "Certainly if at Jamestown Island we were to attempt to restore the first Jamestown condition, we must neglect a later Jamestown condition, which is just as important historically." He also noted the impact on archeological remains: "Otherwise intelligent people . . . seem not to see that in taking steps to effect the restoration of certain historic sites, they are making a decision which may mean the destruction of all the record of a certain period of history, irreplaceable in nature for all time to come."

Advisory board member Fiske Kimball, a noted architectural historian and restorationist, took a more positive view of reconstruction. Mentioning Jamestown, where only subsurface foundations remained of the early houses, he declared that "as far as practical, we should rebuild destroyed buildings on important historic sites. Even the ruins are more interesting, when used in a restoration." Alfred V. Kidder, an archeologist on the board, raised the alternative of preserving building foundations as ruins and reconstructing the buildings nearby for "museum purposes."

A committee including these men then formed to draft an NPS policy on the "preservation, repair, restoration, and reconstruction of historical structures." The resulting statement, formally adopted by the NPS in 1937, observed that "the motives governing these activities are several, often conflicting: aesthetic, archeological and scientific, and educational." Reconstruction prompted by educational motives could mean the destruction of archeological evidence. "It is well to bear in mind the saying: 'Better preserve than repair, better repair than restore, better restore than construct,'" the statement declared. But it was not dogmatic: because each of the motives had value, "the ultimate guide must be the tact and judgment of the men in charge." Overall, the statement was less restrictive of reconstruction than later partisans quoting only the "better preserve than repair . . ." phrase would have it.

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To Reconstruct or Not to Reconstruct
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NPS preservation professionals remained unenthusiastic about reconstruction, none more so than architect Albert H. Good. His eloquence on the subject in *Park and Recreation Structures*, published by the NPS in 1938, is worth quoting at length:

> The curse of most historical restorations, reconstructions, or re-creations is an almost irresistible urge to gild the lily. Why persons charged with bringing authenticity to something out of the past feel licensed to indulge their personal tastes and fancies in the direction of improving on known historical or structural fact is not understandable, but it is almost always the rule. As an instance, the chimney on a pioneer cabin was typically a strictly practical affair, utilizing no more materials than were needed to encase the flues, and, if it were on the exterior of the cabin, resulted in something probably ungainly and spindling in appearance by today's standards. The current fashionable silhouette in chimneys is something very much more stocky and ample. The result? Present day reconstructions of the pioneer's cabin generally are garnished with chimneys proportioned to the tastes of today, and the gaunt and gawky utilitarian aspect of the frontier type is completely missed. . . .
>
> Wherever it is proposed to restore or reconstruct anything with pretensions to historical value, there should always be on hand a stubborn horse-sensible codger, skeptical enough to ask "Why? and too smart-headed to mistake mere enthusiasm and sentiment for a right answer. He should be crowned with laurel forthwith, enthroned as chairman of the project, and charged to ask "Why?" at half-hour intervals until the proposal is tabled or the keys to the finished project are turned over to the Park Authority. . . .
>
> Chairman Smart knows that misguided efforts in so-called restoration have forever lost to us much that was authentic, if crumbling. He is aware that the faint shadow of the genuine often makes more intelligent appeal to the imagination than the crass and visionary replica. He recognizes that for a group to materialize largely out of thin air its arbitrary conception of what is fitting and proper is to trespass the right and privilege of the individual to re-create vanished or near-vanished things within his own imagination.

The most notable reconstruction controversy at the end of the prewar decade involved the McLean House at Appomattox Court House, where Robert E. Lee had surrendered to Ulysses S. Grant in 1865. In this case there was good evidence of the building's location and appearance; many of its dismantled bricks even remained on site. In 1939 Superintendent Branch Spalding joined local interests in urging reconstruction of the house and other community buildings to better interpret rural Virginia society during the Civil War. Chief Historian Ronald F. Lee was opposed; he preferred to display the foundations and interpret the three-dimensional house through drawings, photographs, and "possibly a model of the building exhibited in a museum on the area." But in the "second surrender of Lee at Appomattox" he yielded to strong local opinion, and the NPS reconstructed the McLean House after the war. Later it rebuilt the nearby courthouse as the park's visitor center and museum, an unusual "adaptive reconstruction" obviating a modern intrusion upon the historic landscape. Even the most vigorous anti-reconstructionists have generally conceded the appropriateness and effectiveness of the work done at Appomattox.

Not so at Fort Caroline, perhaps the most egregious reconstruction attempt in the National Park System after Washington's birthplace. Fort Caroline National Memorial in Jacksonville, Florida, contains no remains of the short-lived 16th-century French settlement it commemorates. The site of the earth and timber fort was presumably lost to the St. Johns River a century or more ago. This did not dampen the local congressman's desire to reconstruct the fort, and the NPS capitulated to his persistence on the subject in 1963-64. The modern Fort Caroline, executed on fill at the riverbank, reflected major compromises with the sketchy data available on its predecessor. It was significantly smaller and contained none of the buildings known to have been present originally. The difficulty of maintaining an earthen parapet forced the substitution of cinder-block, plainly visible despite efforts to cultivate a grassy veneer from sod layered between the blocks. The result was so obviously counterfeit that no one could mistake it for the original—perhaps its only virtue.

Several other forts became centers of major reconstruction activity in the following years. Fort Vancouver National Historic Site in Washington lay in the district of the chairman of the House subcommittee responsible for NPS appropriations. When she expressed an interest in rebuilding that 19th-century post, the NPS had good reason to comply. Archeological remains enabled much better results than at Fort Caroline, but as in virtually all reconstructions, gaps in the physical and documentary records had to be filled by conjecture.

The congressman of the district containing Fort Scott, Kansas, also exerted influence as an active member of the House subcommittee on parks. From 1965 to 1978, when he finally succeeded in bringing the fort under NPS administration, he obtained large appropriations for several reconstruction projects there. Service professionals had little enthusiasm for Fort Scott, whose significance they judged marginal, and for the reconstructions, based in some instances on inadequate historical evidence.

Following extensive archeological and historical research yielding relatively good data, the Service also reconstructed Fort Stanwix in Rome, New York, and Bent's Old Fort, Colorado, between 1974 and 1976. These large-scale projects were embraced more willingly by the Service but again owed much to public and political intervention.

Fort Stanwix, which had figured in the Revolutionary War, was one of several noteworthy reconstructions undertaken for the American Revolution Bicentennial. At the centerpiece of the Bicentennial, Independence National Historical Park in Philadelphia, two long-gone houses were slated for reconstruction. One was the Graff House, where Thomas Jefferson had drafted the Declaration of Independence in 1776. Reasonably good evidence permitted a reasonably accurate replica. But the $1.4 million project was not completed without controversy within and beyond the NPS. NPS preservationists who felt that the house was not sufficiently important to warrant such attention found themselves

overwhelmed by an influential outside lobby. And the architecture critic of the *Philadelphia Inquirer*, Thomas Hine, charged the government with misplaced priorities in a piece provocatively titled "We're Building Lies About the City's Past."

The other house slated for reconstruction was that of Benjamin Franklin, Philadelphia's most famous citizen. Here the outcome was different, however. Despite significant archeological and documentary evidence and advocacy by several NPS professionals, senior Service professionals and managers concluded that there were insufficient data to rebuild Franklin's house with the accuracy befitting its importance. Instead, its plan was outlined on the ground and an open steel framework was erected above to delineate the standing structure. This "ghost reconstruction" was widely applauded as a brilliant solution to the problem of recreating a structure on which detailed information is lacking.

In 1968 the NPS published *Administrative Policies for Historical Areas of the National Park System*, containing its first general policy on historic structure treatment since the Advisory Board statement adopted in 1937. This was the policy in effect during the Bicentennial planning period. Reconstruction, it stated, should be authorized only under the following conditions:

(a) All or almost all traces of a structure have disappeared and its recreation is essential for public understanding and appreciation of the historical associations for which the park was established.
(b) Sufficient historical, archeological, and architectural data exist to permit an accurate reproduction.
(c) The structure can be erected on the original site or in a setting appropriate to the significance of the area, as in a pioneer community or living farm, where exact sites of structures may not be identifiable through research.

In the ensuing years, more pressures for questionable reconstructions and growing preservation demands posed by the original historic resources in its custody moved the NPS to an increasingly restrictive reconstruction policy. A 1974 memorandum from Director Ronald H. Walker prepared by Robert M. Utley, associate director for park historic preservation, discouraged reconstructions less on their merits than because they took resources better devoted to preservation: "Too frequently . . . the treatment of fragile and deteriorating original fabric commands lower priority than less pressing needs, such as reconstruction of vanished historic structures [and] creation of 'typical' buildings reflective of past ways of life . . . ."

The Service's next general policy compilation, its *Management Policies* of 1975, disallowed the "typical" constructions that had been countenanced at living farms and elsewhere and for the first time reflected concern about the impact of reconstruction on archeological remains. Reconstruction would now be authorized only when

1. There are no significant preservable remains that would be obliterated by reconstruction.
2. Historical, archeological, and architectural data are sufficient to permit an accurate reproduction with a minimum of conjecture.
3. The structure can be erected on the original site.
4. All prudent and feasible alternatives to reconstruction have been considered, and it is demonstrated that reconstruction is the only alternative that permits and is *essential* to public understanding and appreciation of the historical and cultural association for which the park was established.

The framers of this policy knew that very few reconstruction proposals could meet all these criteria—which was precisely their intent. This intent became most explicit a few years later in the *Service's Cultural Resource Management Guideline*, NPS-28. The latest (1985) edition of NPS-28 flatly declares that "the Service does not endorse, support, or encourage the reconstruction of historic structures." And its requirement that reconstruction occur on the original site without destroying any surface or subsurface remains (regardless of their significance or preservability) was designed to be virtually impossible to meet.

William Penn Mott, Jr., who became NPS director in 1985 just as anti-reconstructionism reached this apogee, was particularly interested in interpretation. From his perspective, cultural resource management was worthwhile primarily as it served the greater goal of public enlightenment and enjoyment. He did not share the aversion of the "professional elite" to reconstructions, which he viewed as valid educational media in many instances where significant original structures had vanished. Visiting Pecos National Monument, he favored reconstructing a portion of the historic pueblo. Visiting Andersonville National Historic Site, he favored reconstructing part of the prison stockade. (Service professionals discouraged the former but assisted in accomplishing the latter.)

When it came time to revise the *Management Policies* in 1988, it was clear that the anti-reconstruction bias in the previous edition and especially in NPS-28 would have to give. With personal input from Director Mott, reconstruction regained its place as a legitimate CRM alternative. But the criteria were substantially unchanged from the 1975 policies and were still more restrictive than for any other structure treatment:

> A vanished structure may be reconstructed if (1) reconstruction is essential to permit understanding of the cultural associations of a park established for that purpose, (2) sufficient data exist to permit reconstruction on the original site with minimal conjecture, and (3) significant archeological resources will be preserved in situ or their research values will be realized through data recovery. A vanished structure will not be reconstructed to appear damaged or ruined. Generalized representations of typical structures will not be attempted.

Those who viewed the archeological resource preservation requirement as a major weapon against reconstruction were unhappy about the allowance for archeological data recovery. If and when the first criterion can truly be met, however, it is neither logical nor practical to insist that affected archeological resources remain undisturbed. The revised policy merely recognized that fact.

A statement prefacing the resource treatment policies stresses the importance of accuracy and honesty in all resource treatments, including reconstruction:

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Geology NHL Theme Study

Harry A. Butowsky

The National Historic Landmarks Survey of the National Park Service is beginning a new theme study focusing on the history of the geological sciences in the United States. This study represents the second phase of the theme study of the history of American science. Phase one of this study, "Astronomy and Astrophysics: A National Historic Landmark Theme Study," was completed in 1989. Subsequent phases of the science theme study will include the disciplines of biology, chemistry, mathematics, physics and other related sciences.

The science theme study is being completed in compliance with the requirements of the Historic Sites Act of 1935. In the years since the passage of the Act, more than 1900 properties in a variety of themes have been identified and designated. Recent National Historic Landmark theme studies have included topics as diverse as the American space program, World War II in the Pacific, the US Constitution, recreation in the United States, and architecture in the national parks.

The proposed study that is outlined below is only tentative. Suggestions and comments for additional sites to be considered or deleted in this theme study are welcomed. Comments on proposed sites are also welcomed. Please send suggestions to Harry Butowsky, National Park Service, Division of History, P.O. Box 37127, Washington, DC 20013-7127; 202/343-8155.

Existing Geology NHLs

The 1987 publication, *History and Prehistory in the National Park System and the National Historic Landmarks Program* outlines the various themes, subthemes and facets, together with their related sites that illustrate the history of the United States. An analysis of this publication reveals a number of themes related to geology.

Economic geology (prospecting and mining) is represented with 33 sites. Themes related to the exploration of the West, including the famous Lewis and Clark Expedition from 1804 to 1806, are represented with 13 sites. Themes relating to scientific and technical surveys have eight sites. While not all of these sites strictly relate to the study, identification or exploitation of geological features, most of them have at least a minor component relating to geology.

The subjects of physical geology and historical geology are less well represented. Physical geology, including the subdisciplines of geodesy, geomorphology, geophysics and seismology is represented by four sites (Reginald A. Daly House, MA; James Dwight Dana House, CT; William M. Davis House, MA; and the Robert W. Woodward House, DC). Historical geology—including the subdisciplines of paleoclimatology, paleomagnetism, paleontology, and stratigraphy—is represented by three national parks (Agate Fossil Beds National Monument, NE; Dinosaur National Monument, CO/UT; and the John Day Fossil Beds National Monument, OR) and two National Historic Landmarks (Edward Cope House, PA, and Othniel Marsh House, CT). Planetary geology is not represented in the theme outline.

The sciences of physical geography, hydrology and meteorology, which are associated with geology under the discipline of the earth sciences in the theme outline, are represented by eight sites.

The "Geology National Historic Landmark Theme Study" will focus primarily on the identification of sites in the areas of physical and historical geology and secondarily in the areas of economic geology and exploration, such as the scientific and topographical surveys significant in the history of the American geological sciences.

National Natural Landmarks

Many sites important in the history of American geology have already been identified by the National Natural Landmarks Program. These sites were selected for designation as National Natural Landmarks because they represent the best examples of the ecological and geographical features composing the Nation's natural heritage. The National Natural Landmarks Program was established by the Secretary of the Interior in 1962 to help identify and encourage the preservation of these significant areas. Since that time more than 600 sites have been designated by the Secretary of the Interior as National Natural Landmarks. Those sites that have previously been designated as National Natural Landmarks that are included in the following study list are identified with the abbreviation (NNL). The reason for including some National Natural Landmarks on the study list is to recognize the importance of these areas for their *historical* values as well as their already recognized natural values.

Decorah Ice Cave, Decorah, Iowa; site of pioneering scientific investigations in 1898, that led to the prevailing theory of ice cave formations. Photo by Mary Klimesh, courtesy the Winneshiek County Historical Society.

Kilauea Crater, Hawaii Volcanoes National Park; site of pioneering work in the science of volcanology. National Park Service photo.

National Parks

Many National Parks were established, either wholly or in part, to protect significant geological resources. A number of these parks are included in the proposed study list so that the history associated with their important geological resources can be documented.

National Register of Historic Places

Some sites important in the history of science have been listed in the National Register of Historic Places. The National Register, maintained by the National Park Service, is the Nation's official list of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture.

Those sites on the proposed study list for the geology theme study that are National Natural Landmarks (NNL), National Parks (NP), areas affiliated with the National Park System (NP-AA), or listed in the National Register of Historic Places (NR) are so indicated.

Proposed study list for the geology theme study

Physical geology

Sydney Chapman Building, Fairbanks Campus of the University of Alaska
Barringer Meteor Crater, AZ (NNL)
Lassen Volcanic National Park, CA (NP)
Ukiah Latitude Observatory, CA
Kilauea Crater, Hawaii Volcanoes National Park, HI (NR)
Whitney Seismograph Vault, Hawaii Volcanoes National Park, HI (NR)
Craters of the Moon National Monument, ID (NP)
Decorah Ice Cave, IA (NR)
Odessa Meteor Crater, TX (NNL)
Ice Age National Scientific Reserve, WI (NP-AA)
Comb Ridge, AZ (NNL)
Rancho La Brea, CA (NNL)
Rainbow Basin, CA (NNL)
Dinosaur National Monument, CO (NP)
Florrisant Fossil Beds National Monument, CO (NP)
Garden Park Fossil Area, CO (NNL)
Morrison Fossil Area, CO (NNL)
Dinosaur Trackway, CT (NNL)
Charles O. Wolcott Quarry, CT
Hagerman Fossil Beds National Monument, ID (NP)
Monument Rocks Natural Area, KS (NNL)
Mastodon State Park, MO (NR)
Cloverly Formation Site, MT (NNL)
Bridger Fossil Area, MT (NNL)
Hell Creek Fossil Area, MT (NNL)
Bug Creek Fossil Area, MT (NNL)
Agate Fossil Beds National Monument, NE (NP)
Hadrosaurous Foulkii Site, NJ
Riker Hill Fossil Site, NJ (NNL)
Fossil Coral Reef, NY (NNL)
Ghost Ranch, NM (NNL)
John Day Fossil Beds National Monument, OR (NP)
Neotoma Valley, OH
Badlands National Park, SD (NP)
Dinosaur Valley State Park, TX (NNL)
Guadalupe Mountain National Park, TX (NP)
Cleveland-Lloyd Dinosaur Quarry, UT (NNL)
Como Bluff, WY (NNL)
Fossil Butte National Monument, WY (NP)

Economic geology

Coal Park, PA

Planetary geology

Lunar Sample Building, Johnston Space Center, TX

Individuals with no sites identified to date

Bertram Boltwood (1870-1927)
Benjamin Silliman (1779-1864)
William Maclure (1763-1840)
Dennison Olmstead (1791-1859)
Harry Fielding Reid (1859-1944)
Amos Eaton (1776-1842)
James Hall (1811-1898)
Douglas Houghton (1809-1845)
Clarence King (1842-1901)
Joseph Le Conte (1823-1901)
Raphael Pumpelly (1837-1923)
Nathaniel S. Shaler (1841-1906)
Charles R. Van Hise (1857-1918)
Josiah D. Whitney (1819-1896)

Definitions

Geology is the group of sciences that deals with the structure and composition of the earth, including its structure, long-term history, composition and origins. The sub-disciplines of the science of geology include the following:

Physical geology deals with the structure and composition of the earth and the forces of change affecting them. Physical geology also includes the disciplines of *geodesy, geomorphology, geophysics* and *seismology*.

Historical geology deals with the earth in past ages and the evolution of life upon it. It embraces the sciences of *paleoclimatology, paleomagnetism, paleontology,* and *stratigraphy*. Historical geology relies on the dating of events in relationship to the geological time scale.

Economic geology is concerned with the location and exploitation of the earth's natural resources and generally includes the disciplines of *crystallography, mineralogy* and *petrology*. Its practical manifestations are prospecting and mining.

Planetary geology is concerned with the geology of the Moon, planets and other bodies of the solar system.

In addition to the above, geology is related to sciences of physics, astronomy, chemistry, biology, geography and economics.

Dr. Harry Butowsky is a historian in the History Division, National Park Service, Washington Office.

Bi-Coastal Disaster Assistance

Michael Adlerstein

Two natural disasters, striking opposite coasts of the country within days of each other this fall, by chance focused on two of America's most dense concentrations of National Register, National Historic Landmark, and National Park System properties. The National Park Service cultural resources staff responded to both emergencies with major assistance efforts. Over 30 highly skilled NPS professionals put on their hard hats and boots and did whatever was necessary to help. Out of the debris of the historic districts, important lessons have been learned that should lead to changes in the way we prepare for and react to these types of resource disasters.

On September 22, the South Carolina coast was devastated by Hugo, a powerful hurricane that had already ripped a path through the Caribbean, inflicting extremely heavy property damage and significant loss of life. It struck Charleston around midnight, buffeting the city for several hours, and leaving uplifted roofs, torn shutters, broken glass, leaning church steeples and thousands of fallen trees and limbs cluttering the streets. At the invitation of the Mayor of Charleston and the Historic Charleston Foundation, Inc. (HCF), Associate Director Jerry Rogers asked the Park Historic Architecture and Preservation Assistance divisions to organize a relief effort. By the fifth day, a five-person team of National Park Service architects, preservation specialists, and a photographer were on site to evaluate the damage to the historic properties and determine the type of assistance the NPS could provide. For the next six weeks, we rotated 13 professionals through Charleston on one or two-week tours, eventually providing evaluations of hundreds of damaged structures, and providing a wide range of technical assistance.

Less than 30 days after Hugo, the San Francisco Bay area was shattered by a major earthquake that, similar to Hugo, focused on a cultural resource area of particular beauty and significance. The Loma Prieta earthquake shook the Santa Cruz mountains and the bay area for mere seconds, resulting in the total loss of most communications systems, truncated roads, collapsed bridges and, of course, damaged, fallen and burning buildings. Because of the broad geographic scale of the damage, the state and Federal governments took the lead. The State Historic Preservation Officer, Kathryn Gualtieri, and U.S. Senator Pete Wilson requested assistance from the National Park Service. Based upon the recently established procedures for "drafting" volunteers, we again enlisted a team to help out in California.

Accomplishments

Charleston is a city with a deep community-based commitment to the preservation of its heritage, and because of this commitment our assistance was beneficial, well received and effective. The team initially developed a damage assessment survey form. It was used to survey the 120 Category I (most significant) privately-owned historic buildings in the city, and later expanded to include the 24 Category I publicly-owned historic buildings, providing a detailed inventory of the types of damages inflicted, citywide, to the most critical resources. It also provided a bottom line cost estimate of the total damage the cultural resources sustained. This field-generated inventory was put onto a computer database to ease manipulation and use of the information by others. More survey information is provided in the accompanying article by Tom Vitanza.

Working with our hosts, the HCF, the team participated in a series of heavily attended workshops for the public on technical issues. Repair and/or replacement of damaged roofs was the major concern, and the workshops concentrated on the common roofing materials of historic Charleston, i.e. slate, tile, sheet metal and wood shingle. Because of extensive water damage to interiors, one workshop was dedicated to the nondestructive methods of drying out water laden structures. Charleston was confronted with a shortage of appropriate building materials and properly skilled craftsmen for the massive work load, and an abundance of fast talking contractors who were selling new roofing systems where only repairs were needed. The team contacted suppliers in other regions, and they stockpiled and distributed specifications, technical literature and NPS preservation briefs on specific preservation problems. Discussions are presently underway on a long-term solution to the enhancement of the preservation skills of the local contractors.

In addition to these formal accomplishments, the team acted effectively as preservation counselors, operating out of the office provided by the HCF. As residents came to the office, they were offered advice on ways to resolve their particular preservation problem. The team also instructed a small army of university students from Clemson, University of Florida, University of Delaware, Mary Washington, and William and Mary, among others in the use of the survey forms. These young people took on the enormous task of surveying the several thousand Category II and III privately and publicly-owned buildings.

During those six weeks in Charleston, over one thousand individual home owners were offered technical assistance. Most importantly, the city was given a strong sense that the national preservation community was concerned and willing to help in their hour of need.

The Loma Prieta earthquake presented the NPS team with a different set of challenges. Earthquake damage is in many ways more insidious, potentially life threatening and more difficult to evaluate than the effects of a hurricane. Whereas Hugo had

worked on the visible crowns of the structures—lifting roofs, tearing cornice work and allowing the extensive penetration of water—the quake disrupted the integrity of the structural systems themselves, from the ground up, causing damage that was subject to a wide range of interpretations. The subjective nature of the damage assessment, combined with the tension generated by the hundreds of after-shocks and the forecasts that the "big one" was imminent, was an issue of concern to the residents, as well as the NPS team.

The real estate boom in the bay area, especially in San Francisco, further complicated the situation. Some property owners saw the disaster as an opportunity to create an empty lot which could be sold at inflated prices, or could be developed at a higher density than the historic structure allowed. Christmas shopping was only weeks away, and many commercial establishments were dependant on getting back to work. Barricaded and dangerous neighboring buildings were more than just a nuisance—they represented an economic menace.

The team split into two groups in order to cover more territory. They inspected over one hundred structures, preparing written assessment reports on ninety structures in Aptos, Gilroy, Hollister, Los Gatos, Oakland, Salinas, Santa Cruz, Watsonville and San Francisco. They also informally inspected and offered opinions on dozens of other buildings, and wrote generic guidelines for stabilization and repair. Working in very uncomfortable conditions, they covered a lot of ground.

Generally, it was felt that the majority of the buildings the team inspected were repairable, although subsequently, many were torn down. The Federal Emergency Management Agency (FEMA) guidelines required a 20-minute or less inspection of damaged buildings in order to tag the buildings. A red tag (hazardous, do not enter) was often interpreted by owners as a demolition permit; yellow (limited entry) and green (no restrictions) tags were often downgraded or upgraded, dependant on a reassessment of the damage or the economic concerns of the owners. The situation was in flux, and preservation was not the only or even highest priority. Through the efforts of the SHPO/NPS team, some buildings were saved, although more historic buildings were demolished than required.

The Lessons

1. Timing is everything, as they say. Our timing was quite different on each coast, but in both cases more or less correct. The assistance most needed (and the type we are best qualified to offer) in these disasters was hands-on technical expertise. We are particularly well suited for this type of assistance due to the broad variety of NPS historic structures and the consequent range of preservation problems continuously facing our architects. Other types of support, such as long-range recovery planning, building code and variance assistance, or craftsman training are forms of assistance that the NPS, as well as other organizations could provide in the future, if appropriate.

When we arrived in Charleston on the fifth day, we were perhaps one or two days late. Clean-up crews had already started to discard "garbage," which unfortunately was sometimes a fascia board, or an ornate section of trim from a porch or roof that might have eventually been determined to be repairable or needed to make a replacement. People had already started to cover their exposed rafters with 10-pound roofing felt rather than 20-pound paper, not understanding that the cost difference was negligible as compared to additional security it would have bought to take them through the winter. Many damaged sections of buildings had already been cleaned up, moved or discarded before proper documentation was performed for restoration as well as for insurance relief. Although arriving earlier would have been logistically more difficult for our team, given the shortage of accommodations, and the chaos in the initial days, an extra day would have been helpful.

We arrived in California much later, on the twelfth day, but here too it was approximately the right timing. The disaster had made communication and travel so difficult, it would have been extremely inefficient to arrive earlier. Because of the broad geographic scale of the damage, we could not have worked effectively until the state had the opportunity to develop a priority listing of threatened historic buildings from each affected community that required the attention of the team. This listing was accomplished on the day the NPS team arrived.

2. Logistics such as office space is critical. The success of the Charleston effort was partially due to the support and office space available at the HCF. A home office, hopefully with an operating telephone, copying machine and a computer, gives the team the time to survey by day and compile their data in the evenings. It also allows for communication with residents, suppliers, and other agencies, which is essential.

3. The damage would have been greatly reduced if the homeowners had been more diligent in the maintenance of the historic buildings. Deferred or insufficient maintenance and seismic retrofitting were clearly the cause of a significant portion of the damage. Recently repaired roofs, and properly retrofitted buildings often survived quite well.

4. Intergovernmental cooperation is essential. Both the state and municipal levels of government should agree on our participation, and the type of assistance the Park Service can offer. The effort would be most effective if it were possible to establish a mechanism for the collaboration of the NPS with FEMA, the American Institute of Architects, the SHPOs, the National Trust for Historic Preservation, the Advisory Council on Historic Preservation, and the other appropriate and concerned organizations with a stake in the survival of these damaged cultural resources.

The NPS participation demonstrated that, as resources allow, we should continue to be involved in assistance efforts such as these. They are of significant benefit to the disaster-stricken communities. They are also beneficial to the NPS employees, strengthening internal lines of communications, exposing them to new preservation challenges and honing their skills in the eye of the storm.

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NPS Surveys Yield Data on the Effects of Hurricane Hugo

Thomas A. Vitanza

The Charleston Hurricane Assistance Team, dispatched by the NPS shortly after Hurricane Hugo struck Charleston, focused its efforts in two areas: assessment of hurricane-related damage and dissemination of technical information through workshops and the media. The team's activities, directed toward both building owners and contractors, were intended to ensure building repairs appropriate to the historic and architectural character of Charleston's historic districts. The methodology and findings of the team's survey and assessment activities may be applied to other situations in which historic structures are threatened by coastal storms or similar natural disasters.

This house collapsed as the eye of the storm came in the direction of the "one way" sign shown in the picture. The walls fell from under the roof framing although the roof structure remained basically intact.

Methodology

Survey efforts were directed toward the 144 most architecturally and historically significant structures in the two historic districts of Charleston. The structures evaluated included only those designated as "exceptional" by the Charleston Architectural Survey conducted by the city's Department of Planning and Urban Development in 1975.

Working in groups of two, team members performed a visual inspection of each structure, recording information in a standard format that was determined before field work began. For each structure, information on the amount of exterior storm-related damage including roof damage, structural framing damage, chimney, cornice and gutter damage, porch and dormer damage was obtained. In these categories, Class "C" estimates for preservation work were recorded. The damage to electrical, mechanical, and plumbing systems was not assessed.

Site damage was recorded only if it had clearly contributed to structural damage. In most instances, estimates were limited to exterior repairs needed; time constraints and limited access determined this approach. However, in some instances, correlations between known exterior damage and resultant interior damage were used to estimate the cost of interior preservation treatments. Deterioration and loss of

Bi-Coastal Disaster Assistance
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The Team

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Tom Busch, DSC
Blaine Cliver, NARO
Paul Cloyd, WASO
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Rene Cote, SERO
Richard Crisson, NARO
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William Hose, WPTC
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Barry Welton, DSC
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architectural fabric due to natural aging, inappropriate and/or deferred maintenance, or building neglect were not within the scope of the survey.

Information gathered by the team was entered into a computer for easy access and manipulation of data that could be used by Charleston city officials and preservation planners to analyze the type of damage incurred by any sub-group of structures. Data was entered so that by using queries and sort commands the analyst could put together a survey sort for a particular need; i.e., list all structures with slate roofs which also had gutter or cornice damage. Almost any combination of sub-groups could be designed for data analysts.

Findings

Overall, survey results revealed a correlation between hurricane damage incurred and the amount of previous maintenance received. Areas such as roof covering, drainage systems, and protective shutters that were in poor condition were especially vulnerable to the destructive forces of Hugo. The first to be hit by the wind and rain, these building elements, if poorly maintained, became "hurricane bait."

Puckered metal roof. Although the roof is still intact, the cleats were probably sheared.

Slate roofs seem to have fared the worst among the several traditional roof types in pre-Hugo Charleston. In this photo, previous repairs are visible (note the mismatched slates).

Several major categories of recurring structural damage were identified. Those most frequently encountered included: loss of roofing surfaces; collapse of unreinforced masonry such as chimneys, gable walls, and parapets; damage to windows from wind pressure and airborne debris; failure of exterior ornamental features such as shutters; saturation of interior finishes from both rain and flood waters; and the loss of electrical and mechanical systems due to flooding. Some instances of catastrophic failure of roof framing systems or the total collapse of wood frame and masonry structures were noted.

Damage associated with salt water inundation of masonry walls and the effects of water between brick and plaster surfaces was less apparent to the survey team. Careful, long-term monitoring will be required to determine whether the harmful effects of salt water inundation have caused irreversible damage.

In 75 percent of the 144 historic buildings surveyed, traditional roofing materials were intact before the storm. These included slate, standing-seam metal, tile, cement shingle, asphalt shingle, or other modern interpretations of traditional systems. About 83 of those buildings lost between 5 percent and 50 percent of their roof coverings, requiring either permanent repair or replacement. According to survey estimates, this represented damage of approximately $4.3 million.

The remaining 25 percent of buildings surveyed lost more than half of their covering. The majority of these lost between 76 percent and 100 percent of their roofs. Damage of this nature represents approximately $7.7 million.

Furthermore, the potential for tremendous interior water damage is associated with this type of roof failure, since the hurricane was followed by heavy rains that occurred before temporary roof repairs were instituted.

The survey revealed that slate roofs were the predominant traditional roofing system found on the subject buildings. Nearly three-fourths of the slate roofs surveyed suffered up to 50 percent damage of the total roof area; the remainder lost from 50 percent to 100 percent of their slates. Approximately one-fourth of the roofs damaged by Hugo will be repairable, while all others will require total replacement of roof covering material. Storm damage to slate roofs alone represented over 40

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NPS Surveys Yield Data on the Effects of Hurricane Hugo
(continued from page 13)

percent of the total estimated storm damage to roofs. The class "C" estimate for this damage totals $5.2 million.

Slate failed in a variety of ways. The most common damage was caused by the force of high winds. Slates were simply lifted off the roof sheathing by winds that reached 140 miles per hour. Large sections of many roofs were stripped to the sheathing; often not even the slate nails remained in place. This type of building material failure indicates other weaknesses in the extant pre-Hugo roofing systems. It speaks to the potential inadequacy of the sheathing's "holding power"--which is the mechanical connection between the fastener and the sheathing board. It also indicates the inability of smooth-shanked fasteners, used in Charleston during the last re-roofing cycle, to resist withdrawal and lateral forces of high winds. Both fasteners and sheathing contributed to the loss of historic slate roofing.

Many slate roofs were also destroyed when slate shingle fractured at the course lines. Vibration from the wind caused slate to fracture where it overlapped with the next course. Wind action caused slate that was already loose to oscillate against the head of the nail which secured it to the roof. Once this movement began, the nail hole became enlarged and eventually the slate was freed and lifted off the roof by winds. Residents who stayed in town the night of the hurricane reported slates ripping off in rows starting at the eaves and peeling up the roof until the entire roof deck was exposed up to the ridge.

The immediate reaction to roof damage was to throw up plastic or canvas tarps to cover destroyed areas and to help prevent further interior damage.

Throughout the central historic city, damage results to other traditional and modern roofing systems were similar to that recorded for slate. Dollar figures vary according to the type of roof material and the associated labor costs for installation.

Many roofs of all types appear to have survived the hurricane intact. Regardless of the visual condition of the roof, it was recommended that every roof which held together should undergo a careful and thorough inspection conducted by a knowledgeable roofing professional. The concept of "getting to know your building and its roof" was advocated by the National Park Service preservation professionals who participated in this assistance effort. It is an idea which hopefully was left with every building owner in Charleston.

Thomas Vitanza is a historical architect at the Williamsport Preservation Training Center, National Park Service.

Photos by Williamsport Preservation Training Center

(See photo story, "NPS Helps Charleston After Hugo," *CRM Bulletin*, Vol. 12, No.6.)

To Reconstruct or Not to Reconstruct
(continued from page 7)

> As a basic principle, anything of historical appearance that the National Park Service presents to the public in a park will be either an authentic survival from the past or an accurate representation of that which formerly existed there. Reconstructions and reproductions will be clearly identified as such.

Feelings against reconstruction remain strong among NPS professionals. At a historians' discussion of the 1988 policy revision, one of the participants who had prepared the final language was accused of "selling out." Others, appreciating the direction under which he and his colleagues had labored, have expressed satisfaction with how much of the old policy survived.

One thing is certain: those expecting that the latest reconstruction policy will significantly affect the quantity or quality of NPS reconstructions have an exaggerated notion of policy. Unlike law, policy is subject to the discretion of agency management, whose commitment to it will inevitably vary with the public and political influences attendant on a public agency. The Fort Union Trading Post reconstruction proceeded essentially without regard to the restrictive policy then in effect. This is not to say that it violated every policy criterion; a good case can be made that it met most of them. But it would have proceeded regardless. So will the next reconstruction project enjoying similar support.

Barry Mackintosh is Bureau Historian, National Park Service.

Paul Laurence Dunbar

The Paul Laurence Dunbar House America's First Publicly Owned Afro-American Historic Site

W. Ray Luce

When the State of Ohio purchased the Dayton house of black poet Paul Laurence Dunbar in 1936, it established the first publicly owned Afro-American historic site. The purchase of the house predated by several years the acquisition of similar sites by the National Park Service. The first National Park Service site related to black history, the George Washington Carver birthplace and boyhood home in Missouri, was acquired in 1943, seven years after Ohio purchased the Dunbar home. Not until 1956 did the Booker T. Washington birthplace in Virginia become part of the National Park System, and the Frederick Douglass House was not added until 1962. Some of these sites, such as the Douglass house, had been open to the public previously, but under private ownership. The Dunbar house was designated as a National Historic Landmark in 1962, early for Afro-American sites and the second Ohio property to be so named.

That the home of a poet should be the first Afro-American site so honored, rather than the home of a political or social leader, is surprising, but part of a historic trend which elevated non-threatening blacks, often leaders in sports or entertainment, to prominence. Dunbar was also an unusual poet who rose to the status of a national hero, with schools, hospitals, banks, clubs, streets, and parks named after him. Not only is Dunbar important, but the process by which the house became a state memorial involves a fascinating blend of dedicated individuals and right timing.

Paul Laurence Dunbar, the son of former slaves, was born in Dayton in 1872. His father, a plasterer and Union veteran, died when Dunbar was 12. He was raised by his twice-widowed mother, who would be a central figure in the later preservation of the Dunbar house. Dunbar was educated in the local public schools. He was the only black in his high school class which also included Orville Wright. His literary skills were recognized while in school. He was president of the literary society, editor of the monthly student publication, and wrote the class song for the 1891 graduating class. He had published poems in newspapers before his first book of poetry, *Oak and Ivy*, was published in 1893 when Dunbar was 21. Recognition was not immediate, and he personally sold many copies of the work to a captive audience while working as an elevator operator. His search for work to allow him to continue to write took him to Chicago during the Columbian Exposition in 1893, where he worked for Frederick Douglass in the Haiti building. His second volume of poetry, *Majors and Minors*, was published two years later with the assistance of patrons in Toledo. Dunbar's life changed almost immediately when a copy of the book was given to William Dean Howells, the period's most important literary critic. Howells wrote an enthusiastic full-page review of Dunbar's second book in *Harper's Weekly*. Dunbar's rise to fame was meteoric. His book sold well; he joined the lecture circuit; and his third book, *Lyrics of Lowly Life*, published by Dodd, Mead and Company of New York, included an introduction by Howells. Dunbar toured England on a lecture circuit, and spent a year in Washington, DC as Assistant Librarian in the Library of Congress. During the next 10 years (1896 to 1906), Dunbar produced an astonishing number of literary works: 11 books of poetry, 4 novels, 4 books of short stories, and lyrics for a New York musical. The work load, however, took its toll on him, both in health and family problems. After attempting to regain his health in Colorado he returned to Dayton and purchased a home for himself and his mother. There he died on February 9,1906, at the age of 33. His death was mourned across the Nation. The tragedy of his early death, with so much promise remaining, called attention to the man and his accomplishments. Commemorations included memorial services, renaming schools and streets in his honor, and a monument incorporating a bronze plaque designed by Tiffany for his grave. He was eulogized by many, including Booker T. Washington who said of him, "His songs have been of great service, not only to his own race, but to the rest of the world....He expressed intelligently and poetically the deeper feelings and thoughts of the masses of Negro people so that the world could understand them. He was, in fact, poet laureate of the Negro race."

The Dunbar house at 121 North Summit was an important symbol of Dunbar's success and prominence even though his actual time of occupancy was only slightly more than two years. The brick home, filled with fine furnishings on a tree-lined street, graphically illustrated how far Dunbar had come from the poverty of his youth. The house proclaimed that the American dream was available to any American citizen with talent and a willingness to work.

Dunbar's mother was nearly 70 when her son died. She carefully preserved, during the remaining 28 years of her life, the house as it had been when her son was alive. She

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Paul Laurence Dunbar House State Memorial, Dayton, Ohio.

The Paul Laurence Dunbar House
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kept his bedroom and study as they had been, including his books and manuscripts.

The interest in Dunbar, which had been so evident when he died, was channeled into the formation of a Dunbar Memorial Association in 1914-1915. The organization, started by Dunbar's friends and schoolmates, was designed to ensure that Americans did not forget the poet. "Preservation of the Dunbar home and library" was the association's second objective, following only "to help perpetuate the memory of Paul Laurence Dunbar." Other objectives included, "proper care of the grave in Woodland cemetery...promoting the observance of the poet's birthday, June 27 of each year, and assisting in the reasonable support of the poet's mother."

Both the "active" and "honorary" officers were integrated groups of high quality. William Dean Howells, author, editor, and critic whose review of Dunbar's work first brought Dunbar national attention, was honorary president. The 4 vice presidents included Brand Whitlock, Mayor of Toledo, Ambassador to Belgium during World War I and author of 18 books; W.E.B. Dubois, historian, author, a founder of the NAACP, editor of *The Crisis*, and leader in the Pan-African Movement; Kelly Miller, Dean of the College of Arts and Sciences at Howard University; and Booker T. Washington, founder of Tuskegee Institute. The breadth of Dunbar's appeal is shown in the leadership of the association, which included Booker T. Washington, proponent of accommodation and vocational training, and W.E.B. Dubois, founder of the Niagara Movement and one of Washington's most prominent opponents who argued that the Tuskegee system placed too little emphasis on academic training and opposition to racial injustice. The honorary officers thus represented an amazingly diverse group of men, joined together to help perpetuate Dunbar's memory.

The active officers from Dayton were also a distinguished group. The President was Edwin J. Brown, superintendent of Dayton's schools. Dr. Lloyd H. Cox, M.D., was vice president. Charles D. Higgins, executive secretary of the Fifth Street black YMCA, was secretary and Charles J. Moore, cashier of the Third National Bank, was treasurer.

The association concentrated on two major activities, commemorating the poet's birthday and assisting his mother. Each year flowers were placed on Dunbar's grave, and a speaker including Congressman Roy Fitzgerald, Mayor A.C. McDonald and ministers from several denominations, presented a program at the Dunbar house on June 27. The group also donated money to Matilda Dunbar at Christmas and provided some help with coal and phone bills.

Many community groups likewise undertook the combined activity of assisting Mrs. Dunbar and preserving the Dunbar house. At first Matilda Dunbar had two-thirds of the royalties from her son's works, but that source diminished over time as sales slackened. Individuals and community groups, ranging from the Progressive Mother's Club of Oakwood to the Brotherhood and Sisterhood of the Wesleyan Methodist Church, provided help and assistance. Boy Scout Troop 30, sponsored by the YMCA, cut the lawn. Matilda Dunbar opened her house to the many visitors who made a pilgrimage to see the poet's home. Mallie Nesbit placed a coin box in the library to allow visitors a chance to assist with upkeep expenses.

During those years, the house took on all the elements of a memorial. It was preserved, including its contents and furnishings, by Matilda Dunbar. Assisted by a wide variety of individuals, Matilda opened her house to visitors who traveled to see the poet's house, and in 1921, Boy Scout Troop 30 attached a bronze plaque to the front of the house proclaiming that it was the home of Paul Laurence Dunbar.

Matilda Murphy Dunbar sought longer preservation of the house. She included a provision in her will giving the house to her son, Robert Murphy of Chicago, with a request "that the room in said Home property which my late son used as his library, be preserved as such, and that all the books, manuscripts, pictures, furniture, and mementoes of all kinds in said library room be kept intact as they now are, as I have no doubt it will be of interest to many who visit this spot from time to time, and who may continue to do so." If it was not possible to keep the library room open to the public through funds from rent from the property or royalties from Dunbar's works, then she consented to loaning the library to an organization that would provide a home for it as a memorial.

The memorial statue of the house was widely recognized. When Matilda Dunbar died in 1934, one Dayton citizen put into words what many were undoubtedly thinking. Adah Dodd Poince wrote a letter to the editor of the *Dayton Journal* proposing public purchase of the house. Poince asked "Will not the men and women of Dayton get together and purchase this property and keep it as a memorial to Paul Laurence Dunbar? It will not cost a great deal but it will show the world that we appreciate God-given talent when we see it. Can Dayton afford to let [Dunbar's library] be disseminated now when perhaps later friends of the poet will be searching everywhere to reassemble his personal effects? Let us put our shoulders to the task now, which is the opportune time."

State Senator Paul Yoder from Dayton officially started the state's

acquisition of the site June 18, 1936, by introducing Senate Bill 45, "to provide for the acquisition of the home of Paul Lawrence (sic) Dunbar and the establishment thereof into a state memorial and museum building." The memorial was to commemorate the life and work of "Paul Lawrence (sic) Dunbar, nationally known negro poet." The bill quickly passed the Senate 4 days later with strong bipartisan support, 21 to 0. When the House considered the bill, July 15, the vote was 48 for, 12 against, but the bill failed for lack of a majority of the 135-member body. The bill was quickly reconsidered the next day with minor amendments and passed 78 to 2. It is not clear what happened to change the vote, but the greatest change took place in the Democratic votes. Of the seven Democrats who voted against the bill, four changed their votes the next day, two chose not to vote, and one was not present. The five Republicans who had voted against the bill made a less dramatic change. Four were not present, and E.R. King from Vinton County was joined by B.L. Cressey from Ashtabula County as the only two legislators voting against the bill. The Senate quickly agreed to the change, 18 to 0. The bill was signed by Governor Martin L. Davey on July 23, 1936, a month and a week after introduction.

The support given to the legislation reflects not only the recognition of Dunbar, but several political and social forces, including strong legislative leadership, growing political and social recognition of the black community, the loss of important Ohio historical sites, and a changing state memorial system.

The bill to purchase the Dunbar house was aided greatly because it was introduced by Senator Yoder, from Dayton. One of the most active senators, Yoder was President pro tem of the Senate. Yoder, however, had larger statewide ambitions. He was running for lieutenant governor and was elected in November. He was thus able to satisfy local constituents' desires while providing statewide leadership in the bill's passage.

The second factor in the bill's success was the growing political power and recognition of the black community in Dayton and Ohio. Dayton, for example, had by 1938 17 black churches and a black newspaper and YMCA. The established nature of the black community statewide is evidenced by the almost continuous black representation in the state legislature since 1880. The Ohio black community was growing in numbers, partially from Southern migration at a time when political alignments were starting to change. Black voters held strong allegiance to Lincoln's party, and until 1960 all blacks elected to the house were Republicans. On the other hand, the Roosevelt coalition seemed to offer a place for the black voter. Thus both parties sought the black vote when the Dunbar bill was introduced, and this desire to attract black voters appears to have been the major reason for the change in six Democratic votes during the July 16 vote. Added to this increasing awareness of the black vote was the impact of Jesse Owens. Although Jesse Owens would not become the hero of the Berlin Olympic games until two weeks after the Dunbar bill passed, members of the legislature were well-acquainted with Owens who had served as a page in the House the year before. The House passed two resolutions in 1935 honoring Owens for his achievements in track, and appointing him as an honorary page. In these resolutions, the legislature cited itself as one of the groups Owens had "brought distinction and glory" to. While there is no direct link between Dunbar and Owens, they shared a great deal in common; both were young black men who had gained national acclaim. Their recognition was shared by both black and white citizens, and both were not threatening to most legislators.

A third factor in the success of the bill was the loss of important historical sites in Dayton. Two weeks after Senator Yoder introduced his bill, Henry Ford announced that he had purchased the Wright brothers' home and bicycle shop and would move them to Michigan. Surely the city would not miss the opportunity to preserve Dunbar's house. A letter to the editor of the *Dayton Journal* asking about a planned monument, then expressed the sentiments of many about the Wright brothers' properties. "Twenty years and more have gone since these famous boys made their first flight and conquered the air, and no recognition has been given and our landmarks of their work are being taken away from Dayton. Where is our civic pride? Will anything ever be done?"

The final factor in the bill's success was the attitude of the Ohio Historical Society and the support of the state for state parks and memorials. The Depression did not stop the acquisition of new sites. In fact, as Ervin C. Zepp, curator of state memorials said, "Having more leisure time, the public became conscious of the need of larger facilities for entertainment and, perhaps, instruction." Governments at all levels became conscious of the need to help the unemployed. "Acquisition and development of public areas of every kind offered the logical opportunity for relief labor." A change directed toward acquiring more house museums like the Dunbar house proved to be a major turning point in the Ohio State Memorial's system managed by the Ohio Historical Society. The system had been started 45 years earlier with the acquisition in 1891 of the Hopewell prehistoric earthworks at Fort Ancient in Warren County. The system had grown to 33 sites in 1935, making it second only to the National Park Service nationally in number of historic, prehistoric, and natural sites. The great majority of the sites, more than 80 percent, consisted of either military-related sites or prehistoric sites. The percentage rises to more than 90 percent if one included 3 presidential sites the Society operated: William Henry Harrison's tomb, Ulysess S. Grant's birthplace, and Rutherford B. Hayes' house. The system in 1935 was growing with 14 of its 33 sites being added during the previous 5 years. Only two of the sites were house museums.

During 1936 the state not only acquired the Dunbar house, but the Westerville residence of composer Benjamin R. Hanby, author of "My Darling Nellie Gray" and "Up on the House Top." The acquisition of the homes of a poet and composer changed the type of sites acquired. During the next 14 years, 13 additional sites were added to the system, including 9 house museums, 2 prehistoric sites and mounds, 1

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The Paul Laurence Dunbar House
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natural area, and a church. Clearly, the Dunbar house fit into a new acquisitions plan, or precipitated it. Much of this change came at the direction of Erwin C. Zepp, who in 1936 was the newly appointed curator of state memorials. Zepp emphasized house museums throughout his career which later included 17 years (1947-1964) as director.

It took almost two years for the purchase of the Dunbar house to be completed and the site to be prepared for public visitation. The public dedication on June 27, 1938 was a major event. The governor attended, as did Lieutenant Governor Paul Yoder, who had introduced the legislation; the Mayor of Dayton; the new state senator; President of the Board of Education; Superintendent of Schools; and the Director of the Ohio Historical Society.

The importance of the project to the black community is graphically illustrated by the committee organizing the dedication. Headed by John A. Green, Executive Director of the city's black YMCA, the committee included a "Who's Who of Black Daytonians." The 13 members included 3 ministers and the wife of a fourth. The group also included C.J. McClin, Sr., funeral director, whose son C.J. McClin would serve for two decades in the Ohio House of Representatives. John R. Rivers, managing editor of Dayton's black newspaper:, *The Dayton Forum*, was also a member. Two other Dayton papers, the *Dayton Journal Herald*, and the *Dayton Daily News* were represented on the committee by reporters. The committee selected Dr. George Edmund Haynes from New York as the dedication speaker. Dr. Haynes, a founder of the Urban League, was serving as the executive secretary of the department of race relations of the Federal Council of Churches of Christ in America. The dedication service was carried live over radio station WHIO. The newspaper account of the dedication noted that J.A. Green, secretary of the Dayton black YMCA, and dedication chairman, "reminded those in attendance that the Dunbar home was the first Negro home in America to be set up as a public museum by a commonwealth or governmental agency." Three other Negro homes were preserved by private groups, but in preserving Dunbar's house, "the state of Ohio has done a unique thing."

The rehabilitation and dedication of the Dunbar house marked an end of the crusade to find a permanent carekeeper for the home following Matilda Dunbar's death. It was also the beginning of a continuing struggle to care for and interpret the site properly. The immediate transition went smoothly. Visitors, now greeted by Ohio Historical Society employees rather than Mrs. Dunbar, continued to see the poet's home, study, and books. Dunbar's birthday continued to be the focal point for local ceremonies and celebrations. A particularly elaborate commemoration was held in 1942, the poet's 70th birthday, organized again by John A. Green.

Three major changes during the 1960s threatened the memorial. First, individuals who had known Dunbar personally became increasingly few 50 to 60 years after his death. With the loss of those who knew him, there were fewer individuals with a personal commitment to preserve his house and memory. Other voices and other issues, including the struggle for civil rights, took much of the energy that had been directed toward perpetuating Dunbar's memory. Second, the nature of the neighborhood changed. Devoid of the Wright brothers sites and, cut off from the city center by a freeway, the area suffered economic decline. This resulted in limited visitation and visibility. The final change resulted from a reevaluation of the Ohio Historical Society's site system. During the 1960s and 1970s the Society's emphasis changed from individual historical sites and house museums to museums. An impressive museum system was established with the Ohio Historical Center and Ohio Village in Columbus, the National Road-Zane Grey Museum near Zanesville, the Armstrong Air and Space Museum in Wapakoneta, the Museum of Ceramics in East Liverpool, the Ohio Caramics Center in Rosewell, the Ohio River Museum in Marietta, and museum buildings constructed at various historic and prehistoric sites. Seeking ways to fund and manage the system adequately, the Society looked at transferring 20 sites to local control as part of the 10-year plan of 1974. The Paul Laurence Dunbar house was one of those identified for transfer, along with the Hanby house, Stowe house, and five prehistoric mounds. The plan was not fully implemented, and only one of the properties left Society ownership. Perhaps the greatest controversy came in 1979 when the Ohio Historical Society Board of Trustees examined a $700,000-plus proposal to rehabilitate the Dunbar house and add a visitor center and museum. The Board of Trustees, concerned about the lack of operating funds for the museum already constructed during the 1970s and apprehensive that the museum might duplicate the envisioned National Afro-American Museum nearby, voted against pursuing the project. Despite that vote, Representative C.J. McClin, head of the black elected Democrats of Ohio, spearheaded an appropriation for rehabilitation of the house and use of two adjoining houses as a visitor's facility and museum. The project was assigned to Central State College to implement rather than to the Ohio Historical Society. McClin's association with the house was longstanding. His father was on the dedicatory committee, and as a boy he belonged to Boy Scout Troop 30, the group that cut the lawn for Mrs. Dunbar.

The first phase of the Dunbar house renovation is complete and the site is now an integral part of the Ohio Historical Society site system, joined by a new Afro-American Museum in Wilberforce. The Society has long since dismissed any plans to transfer the site. The latest examination of the house's status is being undertaken as part of a study of seven sites as a potential Wright Brothers National Park because of Dunbar's close association with Orville Wright.

The Paul Laurence Dunbar house—the first Afro-American site in public ownership—not only honors Dunbar, but illustrates the history of historic preservation and race relations, the benefits and limitations of public ownership, and the importance of individuals willing to care for and protect such sites.

Dr. Ray Luce is the Ohio State Historic Preservation Officer.

Abraham Lincoln

Emancipation Statue, Lincoln Park

Marilyn W. Nickels

The story of the erection of the freedmen's memorial monument to Abraham Lincoln (sometimes referred to as the Emancipation Statue) in Lincoln Park, Washington, D.C., is one of the least known, significant chapters not only in the history of Washington, D.C., but in the real and symbolic meaning of emancipation to those who shared that American experience.

The statue in Lincoln Park depicts Abraham Lincoln with the Emancipation Proclamation in his right hand and with his left hand extended over a kneeling slave, who is beginning to rise from the earth, shackles broken. Lincoln is standing next to a monolith which contains the bust of George Washington in bas- relief. Around the base of the monument is engraved the word "Emancipation." On the front in bronze letters is the following inscription:

Freedom's Memorial

In grateful memory of ABRAHAM LINCOLN, this monument was erected by the Western Sanitary Commission of St. Louis, Mo., with funds contributed solely by emancipated citizens of the United States, declared free by his proclamation, January 1, A.D., 1863.

The first contribution of $5.00 was made by Charlotte Scott, a freed woman of Virginia, being her first earnings in freedom, and consecrated by her suggestion and request, on the day she heard of President Lincoln's death, to build a monument to his memory.

On the reverse side of the monument, the inscription reads:

And upon this act, sincerely believed to be an act of justice, warranted by the Constitution upon military necessity, I invoke the considerate judgment of mankind and the gracious favor of Almighty God.

Emancipation Statue, Lincoln Park, Washington, D.C. National Park Service Photo.

The last words above are taken, of course, from the Emancipation Proclamation itself.

The sculptor of this memorial was Thomas Ball, an American living in Italy at the time he completed this work, with occasional trips back to his native Boston, where he received his monument commissions. It appears that after Lincoln Square (now Lincoln Park) was first so named by Congress on July 25, 1866, plans emerged almost immediately for the erection of a monument to Lincoln on the site. Toward this end, the Lincoln Monument Association was chartered by Congress on March 29, 1867. Although a large "Temple of Fame" monument, with figures of Lincoln and slaves, was planned, it was never approved. Meanwhile, Ball designed a sketch of a Lincoln statue in 1865, but did not receive a commission.

In the Midwest, however, more important events were occurring. Charlotte Scott, a freed slave from Virginia, then living in Marietta, Ohio, approached her employer,

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Emancipation Statue, Lincoln Park
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William R. Rucker, with $5.00, her first earnings in freedom. She had just heard of the assassination of Abraham Lincoln and wished to erect a monument to his memory, Her employer in turn sent the money to General T.C. Smith, commander of the military district at St. Louis, Missouri. Within two weeks General Smith had sent the money on to James E. Yeatman of the Western Sanitary Commission, with a suggestion.

St. Louis, April 26th, 1865

James E. Yeatman, Esq.:

My Dear Sir: A poor negro woman, of Marietta, Ohio, one of those made free by President Lincoln's proclamation, proposes that a monument to their dead friend be erected by the colored people of the United States. She has handed to a person in Marietta five dollars as her contribution for the purpose. Such a monument would have a history more grand and touching than any of which we have account. Would it not be well to take up this suggestion and make it known to the freedmen?
Yours truly,

T. C. H. SMITH[1]

Mr. Yeatman then published the above letter, along with a card, indicating that the Western Sanitary Commission would receive funds for such a purpose and carry out the project. The letter appeared in such newspapers as the Missouri *Democrat*. The largest response to this fund-raising effort came from black Union soldiers who had served Lincoln during the Civil War. Their generosity was, in fact, overwhelming, as can be seen from two letters received from these military units.

Headquarters 70th U.S. Colored Infantry
Rodney, Miss., May 30th, 1865

Brevet Major General J.W. Davidson
Commanding District of Natchez, Miss.

General:

I have the honor to enclose the sum of two thousand nine hundred and forty-nine dollars and fifty cents as the amount collected, under your suggestion, for the purpose of erecting a monument to the memory of President Lincoln. Every dollar of this money has been subscribed by the black enlisted men of my regiment, which has only an aggregate of six hundred and eighty-three men. Much more might have been raised, but I cautioned the officers to check the noble generosity of my men rather than stimulate it. Allow me to add that the soldiers expect that the monument is to be built by black people's money exclusively. They feel deeply that the debt of gratitude they owe is large, and any thing they can do to keep his "memory green" will be done cheerfully and promptly.

If there is a monument built proportionate to the veneration with which the black people hold his memory, then its summit will be among the clouds—the first to catch the gleam and herald the approach of coming day, even as President Lincoln himself first proclaimed the first gleam as well as glorious light of universal freedom.

I am, general, most respectfully, your obedient servant.
W. C. EARLE,
Colonel 70th United States Colored Infantry[2]

Sentiments similar to those above were expressed by another military commander, who wrote the following letter.

District of Natchez, May 2lst, 1865

Hon. James E. Yeatman:

Upon seeing your suggestions in the *Democrat* I wrote to my colonels of colored troops and they are responding most nobly to the call. Farrar's regiment, 6th United States Heavy Artillery, sent some $4,700. The money here spoken of has been turned over to Major W. C. Lupton, Paymaster U.S.A., for you. Please acknowledge receipt through the Missouri *Democrat*. The idea is, that the monument shall be raised to Mr. Lincoln's memory at the national capital exclusively by the race he has set free.

Very truly yours,

J. W. DAVIDSON, Brevet Major-General[3]

The statue which was finally erected was of bronze with a granite base. Ball was paid $17,000 (one account lists $16,242 as the amount raised by the black community) and the Federal Government contributed $3000 for the pedestal. The figure of the slave was modeled after a fugitive slave named Archer Alexander who had been a slave in Missouri at the outbreak of the Civil War.

The monument was dedicated on April 14, 1876, the 11th anniversary of the assassination of Abraham Lincoln. A ceremonial procession began on K Street, between 9th and 14th Streets, NW, and proceeded to the park. The Washington *Evening Star* noted that many whites both watched and participated in the procession. The parade was led by marshals, followed by the Philharmonic band of Georgetown, then a battalion of colored troops. The contemporary newspaper account listed a wide variety of organizations, representing the rich social fabric of Washington, D.C. and the surrounding area during this period.

Once the procession had arrived at the park, Professor John Mercer Langston of Howard University addressed the crowd, then pulled the cord which unveiled the statue, to the sounds of "Hail to the Chief." W. E. Matthews then read an original poem by a black woman, H. Cordelia Ray of New York, entitled "Lincoln." (The poem was later published in pamphlet form.)

Frederick Douglass, the featured orator, then rose to address the crowd. In his audience were President Ulysses S. Grant and his Cabinet, Supreme Court Justices, Senators and Congressmen. Douglass began by characterizing the occasion: "We stand today at the national center to perform something like a national act—an act which is to go into history . . ."[4] He proceeded to recall with some pathos that "no such demonstration would have been tolerated here 20 years ago." This was then a

"first" event: "It is the first time that, in this form and manner, we have sought to do honor to an American great man, however deserving and illustrious."

Then Douglass' remarks evoked a tone of realism. "We fully comprehend the relation of Abraham Lincoln both to ourselves and to the white people of the United States," he said. He spoke indeed as one who had met with the president on more than one occasion, learning at first hand where Abraham Lincoln's priorities lay. "Lincoln was not, in the fullest sense of the word, either our man or our model. In his interests, in his associations, in his habits of thought and in his prejudices, he was a white man. He was preeminently the white man's President, entirely devoted to the welfare of white men," Douglass continued. Speaking to the white audience present, Douglass proclaimed, "You are the children of Abraham Lincoln. We are at best only his step-children".

Despite this assessment of Lincoln, Douglass went on to speak eloquently of the black community's allegiance to the president.

"... while Abraham Lincoln saved for you a country, he delivered us from bondage. . .

"The name of Abraham Lincoln was near and dear to our hearts in the darkest and most perilous hours of the Republic. . . . Our faith in him was often taxed and strained to the uttermost, but it never failed.

"...We came to the conclusion that the hour and the man of our redemption had somehow met in the person of Abraham Lincoln. . . .

"When, therefore, it shall be asked what we have to do with the memory of Abraham Lincoln, or what Abraham Lincoln had to do with us, the answer is ready, full, and complete. Though he loved Caesar less than Rome, though the Union was more to him than our freedom or our future, under his wise and beneficent rule we saw ourselves gradually lifted from the depths of slavery to the heights of liberty and manhood . . .

"Can any colored man, or any white man friendly to the freedom of all men, ever forget the night which followed the first day of January, 1863, when the world was to see if Abraham Lincoln would prove to be as good as his word? I shall never forget . . ."

Douglass acknowledged Lincoln's personal hatred of slavery and then evaluated his role in American history. His summary could have been used as an inscription on the present Lincoln Memorial at the other end of Washington, D.C.

"The trust which Abraham Lincoln had in himself and in the people was surprising and grand, but it was also enlightened and well founded. He knew the American people better than they knew themselves and his truth was based upon this knowledge."

Finally, Douglass returned to the meaning of the present moment, the dedication of a monument to the president by newly freed slaves. His final words appear to acknowledge the long, bitter struggle which awaited the freedmen. Ironically, only a year after his words were spoken, a new president, Rutherford B. Hayes, would withdraw federal troops from the South, paving the way for a succeeding era of racism and repression. Douglass warned, almost prophetically, that this new monument would stand as a reproach to all the prejudice and hatred yet to come.

"When now it shall be said that the colored man is soulless, that he has no appreciation of benefits or benefactors—when the foul reproach of ingratitude is hurled at us, and it is attempted to scourge us beyond the range of human brotherhood—we may calmly point to the monument we have this day erected to the memory of Abraham Lincoln."

This monument remained the only major memorial to Lincoln in the city until the erection of the Lincoln Memorial, dedicated in 1922. The ceremony at the Lincoln Memorial, nearly 50 years after the one in Lincoln Park, confirmed Douglass' predictions about the future of the freedmen and their descendants. Even Dr. Robert Moton, president of Tuskegee Institute and a speaker on the occasion, was relegated to an all-Negro section in the audience. This new memorial, of course, was to become the focal point for later civil rights demonstrations, namely, the concert of Marian Anderson (barred from singing at Constitution Hall on the basis of color) in 1939 and the famous "I Have a Dream" speech of Dr. Martin Luther King, Jr. in 1963.

Perhaps as we move into America's third century, it is time to return to the Emancipation statue in Lincoln Park and recall the story of the woman responsible for its erection. Charlotte Scott's five dollars were meant to acknowledge a fact: slavery was the greatest curse of our Nation's first century. Emancipation represented the greatest hope for the centuries to come.

Dr. Marilyn Nickels is a historian in the Interagency Resources Division of the National Park Service, Washington Office.

1. Quoted in Charles H. Wesley and Patricia W. Romero, *Afro-Americans in the Civil War*, p. 175.
2. Ibid.
3. Ibid.
4. Douglass' entire speech was printed in *The Evening Star* article above. It is also reprinted in Douglass' third autobiography, *Life and Times of Frederick Douglass*.

Black History—Reprise

Once again we are featuring articles on black history in the *CRM Bulletin* scheduled for publication during the month of February, Black History Month. The articles in this issue tell stories of efforts by private individuals to honor people who played important roles in the history of black America; efforts which grew into significant historic preservation accomplishments supported by state and Federal government officials.

While the editors are pleased to print these articles, we regret that we have fallen far short of our goal to devote space in the *Bulletin* throughout 1989 to articles that address key issues associated with historic preservation and black Americans (see *CRM Bulletin*, Volume 12, Numbers 1 and 2). So we will try again. We hope that during 1990 we will be able to discuss some of the important topics we outlined in the *Bulletin* last February, and we hope that our readers will be more responsive by sending in articles or ideas for articles.

Computer News

Betsy Chittenden

ParkNet Funding Approved

WASO Information and Data Systems Division (IDSD) has succeeded in getting $900,000 of a requested $1 million approved for FY91 to build the Servicewide ParkNet communications system. ParkNet will be a communications backbone for the entire Service, in support of regional and Servicewide information systems. ParkNet will provide NPS with vastly improved mail and file transfer capabilities, and will be centrally funded so that costs are equalized among various NPS locations. The end user will see a single menu to communicate with numerous computers in different regions, without requiring different technology and training for each computer environment used. Smaller systems, such as many cultural systems, that cannot afford to set-up or maintain electronic communications abilities or that have been limited geographically by difficult logistics or costs, can use ParkNet as a basic communications tool. ParkNet, when fully implemented, will also provide each region with a video conferencing capability.

If FY90 funding is available, IDSD will develop a prototype of ParkNet in anticipation of full implementation in FY91. Currently ParkNet is conceived as connecting regions, WASO, and major computing centers, but with limited connections to the parks or outside organizations of concern to cultural resources, such as State Historic Preservation Offices and other Federal agencies. We will be working closely with IDSD as ParkNet is designed, to ensure that the ParkNet serves the cultural resources mission of the NPS.

Civil War Soldiers Project

A database of Civil War soldiers that could be used by park visitors, interpreters, historians, and park managers has been proposed for several years by historians and interpreters at Civil War park areas. Interest in such a database was strong in the May 1989 survey of park computer needs, and expressed by several regions and WASO cultural resources staff at the information management planning meeting last October. A proposed new park at Camp LaMott, a historic training facility for black Civil War soldiers in Pennsylvania, has also sparked interest in a database. In 1990, the Information and Data Systems Division will spearhead a task force, working with regional computer specialists in Southeast, Mid-Atlantic, and National Capital regional offices, to examine the feasibility of such a database, looking at such questions as what data would be required, how the database would be used, how the data would be entered and maintained, and technological and communications questions. With the wide potential appeal of this project, the NPS could conceivably enlist the support of outside organizations and interest groups such as Civil War reenactors, the Department of Veterans Affairs, Daughters of the Confederacy, and even the Boy Scouts. If the project seems feasible, IDSD will make an FY92 budget request. Anyone interested in getting involved with this project should contact John Peterson at FTS/202 343-4415.

Information on WASO Cultural Resources Systems Compiled

As part of the Servicewide Information Management Plan, current information on all the databases and automated systems developed by WASO cultural resources divisions has been compiled. One-page write-ups on each system include a short description of each database, its hardware and software, FY90 activities and long term plans, how the system or data is accessed, the responsible WASO division, and a contact person with phone number.

These write-ups are available in printed or WordPerfect form directly from Betsy Chittenden, (FTS/202 343-9521 or CompuServe WASO-IMC-CUL), and of course they are included in the Servicewide Information Management Plan. The partial list below gives an idea of the dozens of systems that are operational, under development, or planned in WASO cultural resources. Information is accurate as of November, 1989.

Primary Resource Inventories	
Automated National Catalog System (ANCS)	Operational
Cultural Sites Inventory, Archeological Resources Component (CSI/ARI)	Under development
Cultural Sites Inventory, Ethnographic Resources Component (CSI/ERI)	Planned
Landscape Inventory	Operational in preliminary form
List of Classified Structures (LCS)	Operational
National Register Information System (NRIS)	Operational
Bibliographic and Encyclopedic Systems	
Cultural Resources Management Bibliography (CRBIB)	Operational
Historic Structures Preservation Database (HSPD)	Operational
National Archeological Data Base, (NADB-Reports) Reports Portion	Operational
Supplementary Information on Primary Resources; Specialized Resource Inventories	
American Monuments and Outdoor Sculpture Database (AMOS)	System abandoned; data only available
HABS/HAER Information System	Operational
Indian Tribes Database	Proposed
Micronesian Cultural Resources Inventory	Proposed
National Historic Landmark Database (CATALOG)	Operational
National Historic Landmark In-Depth Inspection System	Operational
National Maritime Initiative Evaluative Inventory (INIT)	Operational
Spanish Heritage Cultural Resources Inventory Database	Operational
Management and Tracking Systems	
Historic Structures Preservation Guide System (HSPG)	Under development
Inventory Condition and Assessment Program (ICAP)	Operational
Listing of Outlaw Treachery (LOOT)	Data only; system not developed
National Archeological Database, Projects Software Portion (NADB-PROJECTS)	Under development
National Historic Landmark Tracking System	Under development
Specialized Non-resource Inventories	
Clearinghouse of Materials Testing Labs (CLEARINGHOUSE)	Printed report only available
Listing of Education in Archeological Projects (LEAP)	Operational
Masonry Products Database (MASONRY)	Operational

Lead-Based Paint in Historic Buildings

The presence of lead-based paint in buildings poses a clear and present danger to the health and safety of Americans. Since the 19th century, there has been ongoing scientific inquiry into the sources of lead in the environment, the pathways by which lead enters the human body, and the effects of lead in humans. In the 1970s the toxic effects of airborne lead from automobile emissions prompted appropriate action: lead was gradually removed from fuels in the United States. As a result, the lead content of the atmosphere has been significantly reduced and the average blood-lead level of the population has dramatically declined (National Institute of Building Sciences, "Lead Based Paint in Housing Task Force Report to the Board of Directors," February 20, 1988). A significant remaining source of lead contamination in the United States, however, is lead-based paints applied to buildings prior to the 1970s. While not all older paint formulations contained lead as a hiding agent, dryer, or pigment, a substantial number did, and it has been estimated by the National Institute of Building Sciences that in residential properties alone, 42 million homes are currently affected.

Because the impetus for removing lead-based paint has come from the known effects of lead poisoning in children, the focus has been on housing rather than other occupancy uses of buildings. For non-residential use, however, such as offices, retail areas, museums, etc, it is still unclear as to when the presence of lead-based paint poses an active threat that must be abated. Intact, well maintained surfaces with top coats of lead-free paint may not pose a problem unless chewed or otherwise abraded. The only sure way to determine if an active threat exists is to have the space properly tested; either with tests of the surfaces themselves or through specified airborne monitoring and analysis for lead dust particles in the air.

The Lead Poisoning Prevention Act of 1971 (P.L. 91-695, as amended in 1987 and 1988) is the only Federal law to date that applies to lead-based paint abatement in Federally-owned or assisted housing. Section 302 of the law specifically applies to the Department of Housing and Urban Development (HUD) housing program; this agency has taken the lead in developing Federal guidelines for lead-based paint abatement. "Lead-based Paint Guidelines: Identification and Abatement in Public and Indian Housing," is due to be released by April, 1990. The results of these forthcoming HUD guidelines may clarify some of the ambiguities regarding the hazards of lead-based paints.

At the present time, there is no specific guidance at the Federal level to help with the problem of lead-based paint contamination in an *historic preservation context*. A number of Federal agencies are preparing general guidelines. Several states have or are preparing regulations (CT, ME, MD, MA, MN, NJ, RI), but not all of these are yet consistent with the objectives of historic preservation.

General approaches to date in housing have focused on the removal of lead-based paint contaminated surfaces below the reach of a seven year old child. This usually involves the stripping of paint or the removal of the substrate for the first five feet of surface above the floor level and on all chewable surfaces that project at least 1/2 inch (such as baseboards, window sills, door edges, etc.). Not only can this approach be destructive of the historic character of the resource, but if undertaken in a way that puts microscopic lead dust in the air, it can lead to greater health hazards for the occupants.

In the meantime the National Park Service (NPS) and other cultural resource management agencies and organizations are confronted with the problem of lead-based paint abatement in historic properties. In the National Park Service Guidelines Nos. 36 and 76, there are requirements that all NPS housing be free of health and safety risks. This would include the presence of lead, although at this time there is no set standard for when or how the lead is to be removed.

Until policy guidance is forthcoming that will set standards for lead-based paint abatement in historic properties, cultural resource managers will have to use common sense in balancing preservation and safety. Decisions as to appropriate abatement approaches will depend in part on who uses the building and the significance, location, condition of the contaminated surfaces, and results from testing, particularly for the presence of lead-laden dust particles in the air.

This article will briefly describe the hazards of lead paint, methods of detection, abatement options, and considerations specific to preserving the historic character of buildings. A future article will describe actual testing, evaluation, and abatement techniques used in NPS-owned properties affected by lead-based paint. A list of recommendations and precautions offers guidance for safely abating lead as a result of recent findings from HUD, the National Institute of Building Sciences, and others. A reading list of offices

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This Update was prepared by Camille M. Martone and Sharon C. Park, AIA of the Preservation Assistance Division of the National Park Service. The principal article is based on a report by John Hnedak of the NPS Mid-Atlantic Regional Office. Special thanks is given to the staff of the Engineering and Safety Services Division of the National Park Service for their review and comments on the Update.

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currently involved in lead abatement and information on an excellent training video on lead-based paint abatement in Baltimore are also included.

Health Hazards

Recent studies have shown that the presence of lead as an available toxin in our immediate environment is greater than previously imagined. Lead is found in numerous household items and areas, including lead pipes, solder for copper water piping, some lead paint glazes for ceramic dishes, and as an ingredient in many household paints prior to the 1970s. The findings that many children have been poisoned by ingesting lead-based paint chips or from hand to mouth contact in the presence of lead-contaminated dirt and dust from poorly maintained housing units have generated the concern for removing this threat from household environments. Considering that the manufacture of lead-based paint was not officially banned until 1977, most historic buildings will contain some form of lead paint. Historically, early water-based paints, such as the Calcimine paints, did not contain lead. Early oil-based paints, even those historically called milk paints, did contain lead as a hiding agent. Lead was also used as a drying agent and as a pigment, particularly for the yellow color family. From the 1720s to the 1940s almost all oil-based paints contained some lead. These paints were used primarily on wooden surfaces such as clapboards, shingles, shutters, trim, mantles, windows, doors, staircases, and paneling. Because the dangers of lead in paint were historically well known, zinc began to replace lead as a hiding agent in the late-19th century, and after World War I titanium dioxide replaced most of the lead as a primary ingredient of oil paint. Latex paints, introduced in the 1940s, do not contain lead.

The detrimental physical and mental health effects of lead ingestion are extremely serious, even life threatening. They can also be insidiously subtle, especially in children. Compared with asbestos (see *CRM Bulletin* Vol.12 No.3) which produces a serious lung disease with long-term exposure, the effects of lead poisoning are almost immediate and may cause permanent damage. In adults the symptoms can include malaise, short-term memory loss, dizziness, headaches, weight loss, numbness, abdominal pain, impotence, irritability, irrational behavior, insomnia and anemia. Children, especially under the age of seven, constitute the most vulnerable group by far. Even after limited exposure (at a level that might not seriously harm an adult) children can suffer from severe physiological disorders, such as anemia and kidney dysfunction. At greater levels it can interfere with physical growth. Most significant, however, the delicate processes of mental development are sensitive to lead poisoning. Studies in the *New England Journal of Medicine* report loss of I.Q., limited attention span, and learning disabilities in children with known elevated blood-lead levels. Unborn children are especially at risk with maternal pre-natal exposure to lead.

Current official standards for elevated blood-lead levels (a definition of lead-poisoning) are believed by the National Institute of Building Sciences to have been set too high and in need of revision downward. The threshold blood-lead level of 25 micrograms of lead per deciliter (25 μg/dl) of whole blood (40 μg/dl for adult occupational exposure) might be more safely set at 15 μg/dl or less, at least for children. In 1987 the Environmental Protection Agency proposed a childhood standard of 10-15 μg/dl.

There is no single answer to the question, "how much lead in a given building is dangerous?" The amount of lead available for consumption varies widely with the lead content of finishes and substrates, the presence of lead in other building materials such as pipes and solder, their condition, household routines, personal activities, etc., and it is consequently very difficult to predict elevated blood-lead levels from the lead content of walls and woodwork. Lead is ingested through direct consumption of paint chips or from lead dust that has found its way into the air from the breakdown of paint either through chalking off the walls or the abrasion of painted surfaces such as windows being opened and closed. In addition to the threat of lead dust and contamination inside a building, soil levels around a property may contain a high amount of lead from years of absorption of flaking and chalking exterior paint.

Painted surfaces such as these that contain lead and are in obviously poor condition, pose a serious health hazard and should be abated. Thorough architectural research should be done prior to abatement to identify the historic paint, its colors, special decorative treatments, and the layering sequence of the paint throughout the building's history. If highly significant decorative finishes such as graining are found, alternatives to removal should be investigated to preserve these historically significant finishes. Photo: NPS files.

Detection

A building is considered to be contaminated if it contains a certain amount of lead per square centimeter of surface area. The current HUD standard is 1.0 milligram per square centimeter and was derived from the expected accuracy levels of lead-detection equipment, and not from the contamination/poisoning relationship at all. The Center for Disease Control uses .7 mg/cm^2, as does the State of South Carolina, while the State of Massachusetts uses 1.2 mg/cm^2, or 5% metallic lead content by

dry weight. As with elevated blood-lead levels, researchers and professionals press for a downward revision of this standard.

Testing for lead-based paints can be done by trained technicians in the field or in the laboratory. A variety of surfaces need to be tested, both on the inside and outside of a building in order to make an accurate evaluation of lead-based paint contamination of the overall resource. Field tests generally use an X-ray florescence (XRF) analysis; although there are a limited number of on-site chemical tests. Laboratory analysis is primarily through atomic absorption spectrometry, or AAS. XRF may be performed in the lab, but the use of hand-held analyzers for fieldwork has become the detection method of choice by many. Hand-held XRF analyzers are less accurate than chemical or laboratory analysis and can give false-positive readings in the range of current standards. They may also detect lead pipes and other inaccessible materials and attribute that lead to the tested surface. What is appealing about the hand-held equipment, however, is that it is relatively inexpensive, convenient, portable, and many samples can be taken without a large increase in cost. The samples are read in place, and it is a non-destructive method as the reading is taken directly from surface contact and does not require the removal of samples. Skewed results due to plumbing in walls, etc., can usually be recognized as anomalous by a highly experienced interpreter of results, and discarded if appropriate. Most importantly, XRF report results are in the same format as most contamination standards: the lead content over a given surface area.

Similar tests should be undertaken after an abatement project to ensure that the space is free of lead.

In the post-abatement tests, usually done initially after abatement and then again 6 months later, they are best done as chemical tests to determine that no lead dust remains in the air. Dust swipes of abated surfaces are taken and analyzed in the lab and in some cases, air monitoring equipment is set up in the space to detect contaminants in the air.

Abatement

Considering that lead pigments and lead dryers were nearly universal until the 1950s, lead-based paint is common in historic resources, particularly on decorative trim surfaces traditionally painted with oil-based paints. Since the optimal abatement treatment from a public health standpoint appears to require total removal and disposal of contaminated material, cultural resource managers are faced with a difficult dilemma between environmental responsibility and the protection of physical cultural patrimony. The removal or destruction of significant decoratively painted finishes and features, such as graining, marbleizing, friezes, or frescoes may drastically alter the character of a historic resource. In these situations, special options for protecting these features without removal should be investigated. Prior to any abatement that will require the removal of layers of paint, a thorough analysis should be undertaken to document the formulation of the paint, the historic colors, and the sequence of paint layers throughout the history of the property. If this data is not collected prior to removal, an important component of the history of the building may be lost forever.

The four options for abatement of lead-based paint on both the interior and exterior are: **total removal of contaminated materials; paint stripping of surfaces in place; temporary removal of features for shipping elsewhere; and encapsulation of surfaces with new materials.** Standards have not been set for when the presence of lead-based paints do or do not constitute a health hazard. For example, in non-housing uses, can well-maintained surfaces with lead-based paint underneath a modern lead-free paint remain without further abatement? The decision to undertake lead-based paint abatement generally should not be made until there is legitimate concern that a health hazard does exist in a specific building. Unfortunately, the total removal and disposal of contaminated material, including in some cases the substrate, is preferred by some public health officials. This treatment which results in the destruction of wooden trim, mantles, cornices and other decorative features, clearly is not appropriate for historic properties. The stripping of contaminated surfaces in place and repainting may be the best choice of abatement options if done properly so that the area is not further contaminated by residual lead-laden dust. The temporary removal of trim pieces or features for stripping at a factory may be appropriate for shutters, doors, cast-iron radiators or other easily removed items. The encapsulation of lead-based painted surfaces is considered by many to be only a stop-gap measure as the lead will still be present under the new surface. If the surface is not fully stripped of paint prior to applying a coating of new lead-free paint, the contaminated substrate must be well-prepared and the new surfaces well-maintained to avoid further flaking, etc. If architecturally significant surfaces are covered with drywall, decorative historic features may be masked or hidden which would not be appropriate to the historic charac-

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Workers should wear protective gear and specially designed respirators at all times during the abatement. Only high-efficiency particulate air filter vacuums (HEPA-vacuums) should be used as they prevent lead-laden dust from re-entering the abated space. Photo courtesy of the National Institute of Building Sciences and James Keck, Baltimore City Health Department.

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ter of the resource. Special clear resins are being developed which may prove effective in sealing painted surfaces.

Few, if any, early attempts to abate contaminated properties included provisions for worker safety or post-abatement clean-up and monitoring. In many cases, the dry sanding and removal of contaminated paint served to place more dust into the air and actually resulted in increased blood-lead levels of occupants of abated dwellings. In other cases, inadequate removal with poorly prepared and repainted surfaces did not eliminate the lead that chalked off walls or became airborne from the friction of opening and closing windows. Each time a window is opened dust is generated and can be blown into the home and onto floors, furniture and household objects. This has led the National Institute of Building Sciences to state that "the abatement process may pose a more immediate hazard to the 'unabated' intact lead-based paint unless the abatement is done properly."

The concern with improperly abated buildings has led to the question of what constitutes proper abatement. The City of Baltimore and the Kennedy Institute of the Johns Hopkins University have continued to research and monitor abatement procedures. A four-part training video, "Lead Poisoning from Lead-Based Paint, " was developed to properly train Baltimore city workers in the safe way to remove lead-based paint from older city housing. It recommended: that specially trained professionals should do the abatement; that surfaces must be properly cleaned and sealed; that dust generated into the air must be completely removed; that workers must be fully protected and medically monitored; that high heat which will vaporize lead must not be used; and that the abated surfaces must be thoroughly cleaned and not re-contaminated by dust after the abatement. Proper disposal of contaminated materials must comply with state and Federal regulations.

Preliminary results indicate that if paint is being removed from historic finishes left in place, it is better to use a wet system of paint removal than a dry one. Moisture will keep lead contaminated dust from becoming airborne. For that reason, if paint is being removed, it may be best to consider wet sanding, wet scraping, or the use of chemical strippers, some which come in a paste form. As some chemicals are carcinogenic, care must be taken with these substances as well. Special epoxy sealers are being developed which may be effective if there is concern that lead residue may have penetrated into the substrate. If heat guns or plates are to be used, the heat level should not exceed 1000° F. Open flame torches should never be used in a historic building, not only because they would vaporize the lead in the paint, but because they might burn down the building. New forms of sanders are available with attached high-efficiency particulate air filter (HEPA) vacuum hoses to control dust.

Proper protection and clean-up is also part of the abatement. It is generally recommended that 6 mil polyethylene sheeting be laid on the floor and attached with industrial staples and waterproof duct tape. This sheeting should also be placed over openings to keep the area isolated. Once contaminated surfaces have been abated, the area must be wet washed and vacuumed using special high-efficiency particulate air filter vacuums (HEPA vacs). Workers should wear disposable coveralls. Spaces should be tested after the abatement to ensure that there is no residual lead dust.

Conclusion

Responsible behavior on the part of cultural resource management professionals will be necessary as long as issues relating to lead-based paint abatement in historic buildings continue to be debated. It is not known to what extent contaminated materials must be abated to sufficiently eliminate the health hazard. Because as managers of historic properties we know that the wholesale removal of historic materials and replacement with new materials undermines the historic integrity of a building, we must look for successful solutions that mitigate the danger and leave the materials in place. It appears that stripping the paint to the substrate can achieve this goal. To be successful from a preservationist's point of view, Federal guidelines will need to take both the health of the occupants and the protection of the historic resource into consideration.

In a non-residential setting, unless special monitoring indicates that there is an active threat of lead in the air, intact surfaces such as these, with a lead-free topcoat of paint, may not need abatement. If abatement is required, every effort should be made to retain and protect the ornamental trim, cornices, mantles, overmantles, doors, etc. in place. Photo: NPS files.

This article is based on a report written by John Hnedak, NPS Mid-Atlantic Regional Office, using the following documents:

Ballou, William R., Housing Authority of the City of Columbia, South Carolina, "Lead Based Paint Poisoning - A Case Study," paper delivered at a conference, "Lead Based Paint: Identification and Control," October 27-29, 1987, Washington, DC, sponsored by the National Association of Housing & Redevelopment Officials, and the Georgia Institute of Technology.

Chisolm, Dr. Julian J., The Kennedy Institute of the Johns Hopkins University, "Toxicology of Exposure to Lead Based Paint," manuscript of

a paper delivered at a conference, "Lead Based Paint: Identification and Control," October 27-29, 1987, Washington DC.

Gibson. J.L., "A Plea for Painted Railings and Painted Walls of Rooms as the Source of Lead Poisoning among Queensland Children," Australia Medical Gazette, Vol. 23, pp. 149-153, 1904.

HUD Regulations for Public and Indian Housing, 24 CFR part 905 (discussions of lead levels in housing).

National Institute of Building Sciences, "Lead Based Paint in Housing, Task Force Report to the Board of Directors," February 20, 1988.

Needleman, H.L. et al "Deficits in Psychologic and Classroom Performance of Children with Elevated Dentine Lead Levels," *The New England Journal of Medicine*, March 29, 1979, Vol. 300 No.13.

OSHA Standard, see 29 CFR Ch. XVII, "11 Adverse Health Effects of Inorganic Lead."

Recommendations and Precautions for Lead-based Paint Abatement in Historic Buildings

The following are just *some* of the recommendations and precautions that should be taken when removing lead-based paints from historic buildings. This guidance is based on information from various sources and is phrased to stress the importance of protecting the historic character of each building and its environment as well as the health of the worker.

Federal regulations regarding lead-based paint abatement are limited at this time. State requirements may be more stringent in terms of acceptable levels of abatement. Some state environmental and public health offices have printed fact sheets on recommended abatement procedures. The guidance outlined below is meant to make the reader aware of historic preservation as a component of the abatement process. As more regulations take effect and as better abatement techniques are developed, the body of guidance will necessarily change.

Recommendations

Undertake professional paint analysis in historic properties prior to abatement. Identify for the documentary record of the property the type of paint, color, and layering sequence of colors prior to any removal. If decorative paint appears to be significant to the property, investigate abatement alternatives that do not destroy the finishes and features.

Preserve significant historic features where possible: choose abatement procedures that permit retention of historic features and finishes.

Use professionals who are thoroughly trained and who use appropriate abatement equipment and techniques.

Seal off the room being abated from all other rooms; use single or double layers of 6 mil polyethylene, industrial staples or waterproof tape to isolate the work space.

Use negative air pressure to avoid lead-contaminated dust from escaping the abated area.

Workers should wear protective clothing, booties, gloves, goggles and specially designed respirators at all times in the work area.

Provide medical monitoring of all workers.

Monitor the area and the workers for lead contamination before, during and after the abatement.

Use abatement techniques that reduce the amount of lead put in the air; wet scraping, chemical stripping, heat guns or plates less than 1000° F; dry sanding with vacuum attachments.

Use only high-efficiency particulate air filter vacuums (HEPA vacs) and water spraying to clean up daily to reduce dust in the abated area.

Mark and dispose of contaminated materials and lead-based paint residue properly; lead is considered a hazardous waste material and there are state and Federal laws regarding its storage, transportation, and disposal.

Precautions

Don't remove paint without a documentary record of what was there, its color and any special treatments such as graining and marbleizing; don't destroy finishes or features that may be significant to the historic character of the resource.

Don't destroy or encapsulate with new materials significant finishes and features without a thorough exploration of less drastic abatement options.

Don't undertake the work yourself or with untrained crews.

Don't proceed with the abatement while people are still living or working within the building; complete isolation is needed of the abated area.

Do not open the windows or doors during an abatement; an airlock area should be provided where the workmen can remove contaminated garments, etc.

Do not use paper face masks or other respirators not designed for lead-based paint abatement.

Do not allow the workers to work extended periods of time in lead-contaminated environments.

Do not use sandblasting or other dry sanding or abrasive techniques that will mar the finish of historic materials and put lead-contaminated dust into the air.

Don't use residential vacuums or commercial wet/vacs in clean-up as they intensify dust in the air.

Don't mix lead-contaminated materials with other construction debris.

Don't eat or smoke in the work area.

Organizations and Research Sources for Lead Paint Abatement

The following are some of the many organizations that can provide information or guidance on the identification and abatement of lead-based paint in buildings. Some of the organizations listed below have a technical staff available to answer questions by phone relating to lead-based paint abatement, while other offices without phone numbers request that all inquiries be in writing. Because these organizations do not focus on preservation issues, however, it is important to have a clear understanding of the historic resource in order to minimize damage to the significant fabric when undertaking abatement work. The accompanying article, "Lead-Based Paint in Historic Buildings," provides guidance in making these important decisions. State and local organizations should not be overlooked for additional information on lead-based paint abatement.

Department of Housing and Urban Development (HUD)
Office of the Assistant Secretary for Public and Indian Housing
451 7th St., SW
Washington, D.C. 20410.

In response to the 1987 Housing and Community Development Act, part of the 1971 Lead-Based Paint Poisoning Prevention Act, HUD is involved in a major research and demonstration project on identification, testing, and disposal of lead-based paint in housing. HUD is preparing guidelines for the identification and abatement of lead-based paint in public and Indian housing. The guidelines will not only include technical guidance on identifying and abating lead, but will also provide information on worker and occupant protection, testing, cleanup, disposal, and cost-effectiveness of various techniques. Interim guidelines are expected to become effective by April 1, 1990, and will be available to the public and private sector. The final revised set of guidelines will be available sometime in 1991.

National Institute of Building Sciences (NIBS),
1201 L St., NW
Suite 400
Washington, DC 20005
202-289-7800.

NIBS is a congressionally chartered, private, non-profit organization of the building community to improve the building regulatory process. NIBS developed guidelines for the testing, abatement, cleanup, and disposal of lead-based paint in housing for HUD. The guidelines have been refined by HUD and have been sent to the Office of Management and Budget (OMB) for approval to publish. NIBS is considering the development of guide specifications for lead-based paint abatement and new testing techniques for lead-based paint in buildings. NIBS' professional staff can direct people to current sources of information on the subject.

American Institute of Architects (AIA)
1735 New York Avenue, NW
Washington, DC 20006
202-626-7448
Contact: David Bullen, AIA.

The Building Performance and Regulations office is a special interest committee at AIA that deals with all types of fire, life safety, and minimum codes and standards regulations as well as Federal Government regulations for buildings. It has excellent networking capabilities with other design professionals who have case study experience with architectural projects that involve lead-based paint abatement. Members of the committee are involved in the development of codes and standards that address lead-based paint issues in historic buildings. Architects involved with lead-based paint abatement in historic buildings are encouraged to contact the Building Performance and Regulations office at AIA.

US Environmental Protection Agency (EPA)
Environmental Criteria and Assessment Office M.D. 52,
Research Triangle Park
North Carolina 27711
919-541-4167
Contact: Dr. Robert Elias.

The Environmental Criteria and Assessment Office of EPA is involved in a research program on lead-based paint abatement. Two projects that this office will be working on are: 1) developing innovative techniques of abating lead-based paint, which will take into consideration historic preservation concerns in buildings; and 2) developing techniques for reducing human exposure to lead-based paint. The office will also continue to provide assistance to HUD in updating the lead-based paint guidelines.

US EPA
Office of Toxic Substances, TS-794
401 M St., SW
Washington, DC 20460
202-382-3878.

As part of the research program on lead-based paint abatement, the Office of Toxic Substances at EPA can provide information on ongoing abatement techniques and standards, and will have by early 1990, technical staff available to answer questions.

National Institute of Standards and Technology (NIST)
Building Materials Division, Center for Building Technology
Building 226, Rm. B348
Gaithersburg, Maryland 20899
301-975-6706.

NIST is a Federal government laboratory under the Department of Commerce that develops the standards, measurement techniques,

reference data, test methods, and calibration services that help to ensure national and international measurement capability and compatibility. NIST is working with EPA, HUD, and other Federal agencies in the measurement of lead concentrations in existing paint in buildings. NIST has a technical staff available to answer specific questions on this subject. They are familiar with historic preservation concerns in buildings regarding lead paint abatement.

National Association of Housing and Redevelopment Officials (NAHRO)
Technical Services Department
1320 18th St, NW
Washington, DC 20036
202-429-2960
Contact: Terry Matlaga.

NAHRO is a professional membership organization of housing and community development officials, nonprofits, and others throughout the U.S. NAHRO is the leading housing and community development advocate for the provision of adequate and affordable housing for Americans, particularly those of low and moderate incomes. Members develop and manage HUD programs. NAHRO offers workshops for housing and community development agencies and industry specialists who perform, supervise, and oversee lead-based paint detection and abatement programs. Currently, they offer a two-day workshop on how to test for lead-based paint. Workshops are offered every three months (the current cost for the two-day workshop is $195).

Baltimore City Health Department,
Lead Poisoning Prevention
303 E. Fayette St.
2nd Floor
Baltimore, Maryland 21202
301-396-1562
Policy director and contact:
James C. Keck.

This office has developed detailed regulations and guidelines on lead-based paint abatement for the City of Baltimore that were instrumental in the development of the State of Maryland's regulations for lead-based paint abatement in buildings. The office has a technical staff available to answer specific questions on the subject

Georgia Institute of Technology
GTRI/EDL ESTD
Atlanta, Georgia 30332
404-894-3806
Contact: David Jacobs CIH.

This office at Georgia Tech researches new lead-based paint abatement methods and detection methodology. They provide environment surveillance such as measurement of abatement work or measurement of exposures to evaluate the amount of residual lead levels. They also offer training courses for architects, engineers, contractors, public housing authorities, and others who will perform and oversee lead-based paint abatement projects. The courses discuss Federal requirements and standards, and abatement technology and equipment.

Tufts University
Center for Environmental Management
Curtis Hall
474 Boston Ave.
Medford, Massachusetts 02155
617-381-3531.

The Center for Environmental Management is a multi-disciplinary research education and training center which focuses on finding solutions to environmental problems. The Center offers a training course several times a year on lead-based paint abatement for workers, supervisors, and contractors. The course covers background of lead-based paint use, necessary protective equipment, medical surveillance, state and Federal regulations, health effects of lead-based paint, respiratory protection, and cleanup and disposal after abatement.

Leadtec Services, Inc.
522 Beck Ave.
Baltimore, Maryland 21221
301-682-5323
Contact: James C. Keck.

Leadtec Services, Inc. is a training and consulting firm on lead-based paint abatement. They offer two training courses on lead-based paint, They are: a one-day course for workers on health and safety factors of lead-based paint abatement combined with information on various procedures and methods for lead paint removal (for $100), and a two-day course for architects, engineers, contractors, and others, who are planning lead-based paint abatement projects. This two-day course will be based on the HUD guidelines and will involve planning and implementing abatement projects (the cost is $200). Leadtec will bring either course to any location as needed.

Conservation Law Foundation of New England
3 Joy St.
Boston, Massachusetts 02108
617-742-2540.

The Conservation Law Foundation of New England is a non-profit environmental advocate group that provides general information on the prevention of lead poisoning. The Foundation works with government agencies to improve regulations of lead hazards, which include lead-based paint. Government agencies working on regulations for lead-based paint in buildings may wish to contact the Foundation for information on other Federal, state, or local regulations.

Foundation of the Wall and Ceiling Industry
1600 Cameron St.
Alexandria, Virginia 22314
Hotline number: 703-548-0374.

The Foundation of the Wall and Ceiling Industry is a non-profit research and education organization offering free information services to the public on subjects relating to walls and ceilings. They have specific information on lead paint abatement with several resources including a library with copies of state regulations on lead paint abatement. The Foundation also has a Lead Base Paint Kit available free to the public (the kit can be obtained by writing to the address above or by calling the hotline number).

For More Reading

The following reading list includes some regulations and guidelines on lead-based paint abatement, articles on safely removing lead-based paint, and hazards of lead-based paint removal. Some of the publications are available from the organizations identified (see the list of Organizations and Research Sources for addresses). This reading list is not intended to be a comprehensive overview of the subject, and a more complete resource investigation should be undertaken when planning a lead-based paint abatement project.

Abatement Regulations for Lead Paint. Baltimore, MD: City of Baltimore, July 1987.

"Commercial Paint Stripping," **The Old-House Journal**. July/August 1988.

"Coping With Lead Paint," **New England Builder**. February 1989.

"CSPC Warns About Hazards of "Do-It-Yourself" Removal of Lead-Based Paint." Washington, DC: Consumer Product Safety Commission, February 1988.

"Danger: Restoration May Be Hazardous To Your Health," **The Old-House Journal**. May 1976.

DeKorne, Clayton. "Lead Paint: A Renovator's Hazard," **Journal of Light Construction**. September 1989.

Dolan, Maura. "The Lead that Lurks in Older Houses." **The Washington Post, Washington Home**. August 1989.

Fischer, Cynthia S. "Getting the Lead Out: Safely Removing a Threat," **Painting and Wallcovering Contractor**. May-June 1989.

Lead-Based Paint Guidelines: Identification and Abatement in Public and Indian Housing. Washington, DC: Department of Housing and Urban Development (HUD), forthcoming by April 1990.

Lead-Based Paint in Housing. Washington, DC: National Institute of Building Sciences (NIBS), February 1988.

"Lead-Based Paint in Housing." **Building Sciences,** Vol. 11. Washington, DC: National Institute of Building Sciences, December 1988.

Lead Poisoning from Lead-Based Paint (Lead-Based Paint Health Hazard and Abatement Procedures). Baltimore: Baltimore City Health Department, 1989. Videotape available for $65 (write to: James Keck, Policy Director, Lead Poisoning Prevention, Baltimore City Health Department, 303 E. Fayette St., 2nd floor, Baltimore, MD 21202).

"Lead Poisoning While Stripping Paint," **The Old-House Journal**. April 1980.

"Paint Strippers, Take Note," **The Old-House Journal**. May 1982.

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"Restoration Health Hazards," **The Old-House Journal**. Jan/Feb 1988.

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Bulletin Board

Partners for Sacred Places is a new national organization dedicated to the preservation and sound stewardship of America's religious properties. Partners has defined three major program initiatives: an information clearinghouse; technical assistance outreach; and educational campaigns. The information clearinghouse will provide consultations to clergy, laypeople and preservation organizations. Clearinghouse activities include collecting reference materials on building repair and property management, as well as on the history and evolution of the country's religious architecture, and creating a directory of professionals in architecture, engineering and property management who are experienced in working with historic religious buildings. Technical assistance to be offered includes co-sponsoring the annual Sacred Trusts conference on the preservation and stewardship of religious properties, and creating a traveling workshop series. As part of its educational campaign, *Partners* will produce audio-visual presentations, and will work with foundation and corporate leaders to encourage support for preservation projects involving religious buildings. For additional information, write: *Partners for Sacred Places*, One East Penn Square, Suite 2300, Philadelphia, Pennsylvania 19107 (215) 568-4628.

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An inspection and assessment of over 400 monuments at Gettysburg (PA) National Military Park and National Cemetery are nearing completion. Undertaken by the NPS Mid-Atlantic Regional Office, the project involved a condition evaluation of each monument and its immediate site. Maintenance procedures specified for the monuments will be compatible with the Inventory and Condition Assessment Program (ICAP) currently being established for structures. A manual for the establishment and implementation of a comprehensive short and long-term maintenance plan for the park's collection of monuments is currently under preparation. For further information, contact: Dennis Montagna at 215-597-5824 or Bob Powers at 215-597-5821.

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Preservation Assistance Division announces publication of *Federal Preservation Laws*, a compendium of Federal legislation affecting historic and cultural resources. Single copies of this 61 page booklet are available by writing: Preservation Assistance Division, National Park Service, P.0. Box 37127, Washington, DC 20013-7127.

Book Review

Great American Lighthouses

By F. Ross Holland, Jr. with a foreword by Sen. George J. Mitchell. (Washington, D.C.: Preservation Press, 1989, 346 pp., index, paper)

Reviewed by James P. Delgado, Maritime Historian of the National Park Service.

The bicentennial year of America's commitment to safe navigation of its coasts, rivers, and lakes was celebrated in 1989. The first act of Congress to deal with a responsibility not otherwise defined by the Constitution, the act establishing Federal authority for aids to navigation was signed into law by President George Washington 200 years ago, initiating a tradition that ultimately led to the construction and lighting of more than 1,300 lighthouses in the United States. The Lighthouse Bicentennial focused considerable attention on America's lighthouses and their preservation, which is a particular concern given the gradual decline in the number of federally maintained aids to navigation and the problems of preserving brick, iron, and brass structures and objects in corrosive marine environments.

Romantic, isolated, wave-swept and forlorn, lighthouses have always captured the attention of the public. This is attested to by numerous books on lighthouses, including Mr. Holland's first major work on the subject, **America's Lighthouses**. This book, long out of print, has happily been reprinted by Dover Books and forms the essential introduction to lighthouse technology, history, and lore. Countless other regional or local guidebooks and histories have been published, many unfortunately difficult to obtain if not impossible. Other than the now dated listing of some 400 aids to navigation in Mr. Holland's first book, there was no comprehensive listing of the most significant, accessible, and just plain interesting of America's lighthouses.

F. Ross Holland, Jr., working from a variety of sources, including the many regional guidebooks, National Register of Historic Places nomination forms, National Maritime Initiative and U.S. Coast Guard inventories and records, and, most importantly, his detailed personal knowledge of the subject, has written the definitive guide to America's lighthouses. The third book of the National Trust for Historic Preservation's new Great American Places Series (the previous two books covering bridges, dams, and movie theaters), **Great American Lighthouses** does not replace, but rather wisely supplements **America's Lighthouses.**

The book is divided into three sections. The first details the establishment and early history of aids to navigation, types of lighthouses, the development of lighthouse optics and lights, lightships, lesser aids (such as fog signals and buoys), the life of the lighthouse keepers, and the administration of lighthouses by the Federal Government. The second, and major section is a regional, state-by-state guide to some 300 great American lighthouses, with individual lights discussed, often illustrated, and general directions provided for the touring lighthouse aficionado. As this latter point illustrates, the majority of lighthouses in the book are accessible, or at least visible, to the public. Though brief, the capsule biographies are illuminating, factual, and detailed. The third section of the book deals with the issue of lighthouse preservation, specifically addressing both the successes--the various preservation options and a discussion of the major preservation organizations--as well as an epilogue, "lost lights and losing battles," which underscores the fragility of many of the lights listed in the book and the need to not be complacent about the preservation of this unique maritime structure.

Great American Lighthouses is the perfect book for the Lighthouse Bicentennial. Written by the Nation's leading living lighthouse historian and preservationist, the book is more than a guide or a compendium; it is a rallying cry that illustrates the significance of the bicentennial, and the physical legacy of 200 years of aids to navigation. The book also provides a "state of the union" address for lighthouse preservation. *The* two books that are a must for the lighthouse historian and preservationist are **America's Lighthouses** and **Great American Lighthouses**. As Ross Holland states in the book, "There is no such thing as a bad lighthouse. Hie thee to the coasts, Great Lakes, bays, sounds and rivers of this great country, and see that simple fact for yourself." I strongly recommend that you do; just don't forget to bring the book.

Capitol Contact

Bruce Craig

Fredericksburg/Spotsylvania Boundary Expansion

Legislation establishing formal boundaries for Fredericksburg and Spotsylvania County Battlefields Memorial National Military Park passed the Senate and is on its way to the President's desk. The legislation which passed the House of Representatives back in July 1989 (HR 875), adds approximately 1,860 acres to the parks existing 5,909-acre boundary.

The boundary, though based on National Park Service recommendations for a 900-acre addition, was substantially enlarged by the House Sub-Committee on National Parks and Public Lands. Based on testimony provided by expert witnesses including Dr. Gary W. Gallagher of the Department of History at Pennsylvania State University, and National Parks and Conservation Association (NPCA's testimony advocated boundary recommendations found in the Association's *National Park System Plan: A Blueprint for Tomorrow*), significant additions to the Service's "consensus boundary proposal" were realized. In addition to the lands added to protect the core resources of the park, the legislation authorizes the Secretary of the Interior to accept donations of conservation easements on lands adjacent to the park. These easements have the effect of helping to protect the scenic and historic resources on park and adjacent lands when viewed from within or outside the park. The President is expected to sign the boundary legislation.

Kino Missions Proposal Gets Hearing

The House of Representatives National Parks and Public Lands subcommittee held a hearing on November 2, 1989, on legislation seeking to add two important archeological sites to the existing Tumacacori National Monument in Arizona (HR 2843). Both sites are associated with Father Eusebio Francisco Kino, a Spanish missionary who established a line of missions on the Spanish frontier in an area in northern Mexico and southern Arizona known as Pimeria Alta (the Spanish name for the region). The bill would add about 29 acres to the existing 16.5 acre national monument.

Controversy over the bill centers on a proposed name change for the Tumacacori National Monument. As drafted, the bill proposes redesignating the monument and the two proposed additions to the unit to "Kino Missions National Monument." NPS Director James Ridenour testified that the historical name "Pimeria Alta" was the Service's preferred name and recommended the area be redesignated as a "national historical park" rather than a "monument," thus recognizing the multiple historical resources present. Others testified not to

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Capitol Contact
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change the Indian name Tumacacori. NPCA stated that the collective resources did not significantly represent the totality of the Pimeria Alta region (an area of over 50,000 square miles) and that before redesignating, the National Park Service should work with the Mexican government and study the feasibility of establishing an international park in the region.

Historic Trails Proposed

Hearings were also conducted on several new historic trails. Legislators listened to testimony presented by historic trail advocates seeking to establish a California National Historic Trail and Pony Express National Historic Trail (HR 1109). The congressmen discussed the findings of a September 1987 Interior department Eligibility/Feasibility study. The NPS found that the trails were suitable for designation and supported their designation.

If you would like any additional information relating to any of the bills discussed above, drop me a note at NPCA, 1015 3lst Street NW, Washington, DC 20007.

Announcements

RESTORE Offers Masonry Conservation Workshop

RESTORE, a restoration skills training program, is offering a five-day intensive workshop in preservation maintenance technology and building conservation, to be held March 19-23, 1990, in Williamsburg, VA. The program is designed to teach state-of-the-art architectural restoration skills and preservation technology to specialists in the building trades

Tuition for the workshop is $995.00, which includes lab fees and all printed course materials. For applications and further information, contact Jan C.K. Anderson, Executive Director, RESTORE, 160 South Street, New York, NY 10038; **Phone**: 212/766-0120.

Conserving Architectural Heritage

A short course entitled, "Performance of Wood in Existing Buildings," is being offered on March 2 and 3 by the Washington-Alexandria Architectural Center and Virginia Tech's Office of Continuing Education.

The course will be taught by Hugh Miller, FAIA, past Chief Historic Architect of the National Park Service and currently Director of the Virginia Department of Historic Resources, and Dr. Joseph Loferski, Assistant Professor of Wood Products at Virginia Tech.

For more information, call 703/698-6016 or 6007.

Preservation Awards

The Florida Archaeological Council honored private sector involvement in preserving Florida's prehistoric and historic heritage by presenting awards to individuals and corporations for exemplary support.

Receiving awards were Dale Allen, Steve Allen and Chuck Mitchell for their support in preservation of the Hernando de Soto-Apalachee Site in Tallahassee; Frank Bilek and Eveline Bilek for sponsoring long-term archeological studies at the Mission San Pedro y Pablo de Patale in Tallahassee; George Dorion and Dottie Dorion for sponsoring extensive archeological study of the Mission of Santa Catalina de Guale and encouraging other site investigations; Jack Eckerd and Jim Swann for their support in preservation and study of the internationally recognized Windover Site in Titusville; Bob Johnson for his support of preservation, research and education efforts at the Warm Mineral Springs Site in Sarasota; the Lykes family for contributing funds and equipment for excavations, a traveling exhibit and publication of a book on the Fort Center Site in Glades County; and the Arvida Corporation for preservation and interpretation of the Peace Mound Site in Broward County.

The awards were presented on November 16, 1989, during a public forum titled, "Building the Future while Protecting the Past: A New Partnership."

Cultural Resources Official Retires

Lee Nelson, FAIA, Chief of the Preservation Assistance Division of the National Park Service, has announced his retirement effective February 24, 1990. During his 32-year NPS career, Mr. Nelson has directed historic preservation projects in the parks and has collaborated in the research and preservation of other non-NPS buildings. He was a founder in 1968 of the Association for Preservation Technology (APT), serving as the first American editor of the *APT Bulletin*. He also personally directed the development of over 100 publications that have been produced in such series as the *Preservation Briefs, Technical Reports, Preservation Tech Notes* and *Preservation Case Studies*.

CRM BULLETIN

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