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## VOLUME 19 NO. 9 1996

**ISSN 1068-4999**

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Statements of fact and views are the responsibility of the authors and do not necessarily reflect an opinion or endorsement on the part of the editors, the CRM advisors and consultants, or the National Park Service. Send articles, news items, and correspondence to the Editor, CRM (2250), U.S. Department of the Interior, National Park Service, Cultural Resources, P.O. Box 37127, Washington, DC 20013-7127; (202-343-3395, FAX 202-343-5260, Internet: Ron_Greenberg@nps.gov).

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POINT OF VIEW

Change

The cry of change has been ringing through the corridors of West Virginia University since the arrival of our new president. We are not alone in heeding this call, which is resounding throughout academia and the federal government. In many cases, the word is the title of a cautionary tale, but in other uses a call for new challenges and opportunities. The Institute for the History of Technology and Industrial Archaeology (IHTIA) has been swept up in the realities of change and is addressing these new challenges accordingly.

IHTIA collections coordinator, Larry Sypolt, has provided the leadership in taking us into the forefront of the communications age. Just as our 1854 farm house no longer stands in splendid isolation in a bucolic setting, IHTIA's communication and information links are now connected to the information super highway where we routinely email colleagues from as far away as St. Petersburg, Russia. But this is only a beginning. We now have access, not only to our own library holdings at the "click of a mouse," but to leading collections around the world. Thanks to our partnership with the Historic American Engineering Record (HAER), the world now has access to the computer index of the HAER database of over 30,000 documented sites and structures. Because of an IHTIA initiative, these holdings are accessible through WVNET (West Virginia Network for Educational Telecomputing).

This database is available through WVNET, using the gopher at the National Center for Preservation Technology and Training. (Access gopher.ncptt.nps.gov, choose National Park Service Resources, then Historic American Buildings Survey/Historic American Engineering Record. This will connect the user directly to the Morgantown database.) Before long, users will also be able to access the HABS/HAER database directly through IHTIA's soon-to-be-established homepage on the World Wide Web.

With the development of an IHTIA homepage, users will be able to access updated information about ongoing projects, as well as services available. Once established, the homepage will also supplement our Field Notes and Annual Review, as well as promote other IHTIA publications like the monograph series, research reports, and related articles.

In a change of emphasis, IHTIA has joined hands with the distance learning group at West Virginia University to explore the possibilities for a cultural resources management program using the latest electronic technology. As envisioned, the program would serve practicing professionals across the country with emphasis on the needs of National Park Service personnel. Indeed, this could culminate in a certificate in Cultural Resources Management in conjunction with the National Park Service, with plans to hold internships at national parks or other appropriate locations.

Our documentary expertise has been greatly enhanced with the development of computer-aided drafting and design capabilities (CADD), sophisticated structural analysis programs, non-destructive techniques for testing historic materials, and geographical information systems (GIS). In the future, we anticipate using digital cameras and other devices to send field data directly into our CADD system. The results of these changes will be incorporated into our teaching activities.

In order to take advantage of these technological changes in the face of declining public funding, it has been necessary to restructure IHTIA and reduce our salary support, reflecting an anticipated reduction in our federal appropriations. With outside funding over and above our annual appropriation on the wane, we have taken action to reduce the budget for salaries to fit within our base budget. Such a move, while painful to make, will result in long-term security for IHTIA and enable us to take advantage of many opportunities looming on the horizon.

For more information on the IHTIA homepage, or the HABS/HAER collection, please send email requests to <LSYPOLT@WVNVM.WVNET.EDU>.

—Emory L. Kemp
Director, IHTIA

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Letters

Dear Editor:

I want to thank you for some help you have given me. Recently, I observed the first anniversary of my appointment as Director of this Division. I've been thinking about the growing list of people and agencies I want to thank for a very good first year. CRM has a special place on that list.

Although in existence for 15 years, my Division had not been directed by a person with professional credentials in historic preservation until I was appointed in October 1995. My predecessors, three very talented individuals with advanced skills in architecture or archeology, did not bring to their tenures the training in preservation program management, conservation techniques, etc., that I received while acquiring my Master of Science from the University of Vermont Historic Preservation Program.

Consequent to all that, I do things a bit differently from how they have been done in the past. Our staff have received training—for the first time—in basing our work more firmly in the legal, philosophical, and technical concepts on which preservation administration ought to be based. They are now exposed to the concept of conservation techniques such as wood consolidants and other methodology and means long available within our professional discipline, but not commonly known in related disciplines. The Metropolitan Dade County Historic Preservation Board has been exposed, also for the first time, to issues and discussions about opportunities through advanced techniques, program management and development, and the availability of resources heretofore unknown to them. This has been good for the people of Dade County. Much of this has come to us through the thoughtful discussion and information offered by CRM.

CRM has been a welcome visitor to my personal and professional mailbox for a number of years. Bringing it along to the office has made colleagues and other interested people more aware of just about everything we are in preservation face. No single resource has been more effective this past year, in expanding the thoughts, capacity, and capability of this agency, its staff and the many other individuals and groups we are in contact with here in South Florida.

In separate correspondence I have asked that all members of our Preservation Board, staff, and advocacy agencies be added to your subscription rolls. I hope it is of value to you to know that CRM is so valuable out here in the communities, offices, and efforts of preservationists in Dade County. It is full of important news and background, and serves us as a superb teaching instrument. It is an outstanding journal of interest to the professional and lay person alike. It is of far more immediate value to our efforts and community than any slick glossy highlighting the latest advance in the 'save-the-pretty-building' movement. You're running the most useful publication I know of. I have to hide mine in my office to prevent people from walking away with my copy.

Thanks to you and your staff for much help.

—Gene F. Barfield
Director, Office of Community and Economic Development
Historic Preservation Division
Miami, FL

Dear Editor:

It was somewhat surprising to read the latest copy of CRM, which was intended as a tribute for the 30th anniversary of the National Historic Preservation Act (CRM, Vol. 19, No. 6), and not find a single mention of Native American efforts or contributions to the protection of our Nation's Heritage. In the Pacific Northwest, and other places across the country, Native Americans are becoming increasingly more involved in cultural resource management activities. Native Americans are reviewing and writing reports,

—continued page 42
The National Park Service, it is often observed, employs more landscape architects than any other single organization. This has been the case since Franklin Roosevelt's New Deal created what Albert D. Taylor described at the time as "unlimited opportunity for landscape architects."  

But if the marriage of landscape architecture and the Park Service was consummated in the spring of 1933, it was preceded by long acquaintance. Scenic preservationists had urged the creation of a Park Service within the Department of the Interior since at least 1905, when Gifford Pinchot established his Forest Service within the Department of Agriculture. That year Congress transferred the national forest reserves from Interior to Pinchot's forest bureau, and Pinchot pressed for the transfer of the national parks as well. Since this change would have led to increased grazing, logging, and dam construction in the parks, it was opposed by a broad coalition of park advocates, including automobile clubs, mountaineering groups, and landscape architects. If this heterogeneous group hoped to respond effectively to what has been called the "Gospel of Efficiency," they needed to offer a suitably Progressive alternative to scientific forestry and reclamation engineering as models for park management. And so they argued that increased domestic tourism, catalyzed by a growing interest in national scenic treasures, would generate economic activity, prevent Americans from spending their money abroad, and inspire patriotic sentiments among an increasingly diverse population. But scenery as an "asset" would accrue value and yield returns only if left "unimpaired." Extractive industries—even if regulated—promised to destroy the features tourists came to see. To preserve parks then, according to Secretary of the Interior Richard A. Ballinger in 1910, "comprehensive plans" would need to be drawn up so that the parks could be "opened up for the convenience and comfort of tourists and campers and for the careful preservation of natural features."  

It followed that Ballinger's successor, Franklin K. Lane, appointed a San Francisco landscape architect, Mark Daniels, "general superintendent and landscape gardener" of national parks. In 1914, Daniels spelled out how landscape architectural theory could guide the management of the federal scenic reservations: "Land is not always land, but is sometimes coal, sometimes timber," he observed, "it is also sometimes scenery, and as such merits the careful study and development that would be extended to other national resources."  

Stephen T. Mather, who was appointed an assistant to Secretary Lane early the next year, later stated that "all of the improvements in the parks must be carefully harmonized with the landscape, and to this end, engineers trained in landscape architecture or fully appreciative of the necessity for maintaining the parks in their natural state must be employed."  

These sentiments were inscribed in the heart of the 1916 legislation that created the National Park Service, which charged the new bureau "to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for future generations."  

From the earliest days of the Park Service, Mather consulted landscape architects as experts who could provide not only design...
services, but technical validation as well, analogous (in a more artistic vein) to the scientific expertise provided by Pinchot’s foresters. As the number of people visiting national parks rose dramatically, Park Service landscape architects developed a practice tailored to the task of modernizing the national park system. In the early 1920s, chief landscape architect Daniel R. Hull applied contemporary principles of town planning in the design of “park villages” that concentrated visitor services and accommodations in picturesque groups of buildings. The park villages in Yosemite Valley and on the south rim of the Grand Canyon are examples. By the mid-1920s, Hull’s successor, Thomas C. Vint, faced new threats to the scenic integrity of the parks. By that time, Congress had responded to the growing popularity of national parks among middle class motorists by making huge appropriations for the construction of modern park roads. Under Vint’s guidance, the Park Service landscape division exerted a modifying influence on road building, often battling park concessioners and other interests to do so.

Beginning with Going-to-the-Sun Road in Glacier National Park, Vint’s landscape architects collaborated with engineers from the Bureau of Public Roads to produce park roads that made carefully selected scenic areas accessible, without significantly impairing the scenic vistas motorists had come to see.

By the mid-1920s, numerous controversies and debates had emerged over conflicting visions of what constituted appropriate “park development.” Park concessioners, whom Mather had cajoled into putting up the capital for many park improvements, needed to expand in order to pay dividends; mountaineers and preservationists decried what they saw as grotesque overcrowding in certain areas (especially Yosemite Valley) and warned that further development would destroy, not preserve, park landscapes; park superintendents, responsible for public safety and health, demanded better roads and facilities. By the end of the decade, Thomas Vint had formalized the expression of these conflicting interests into a planning process, culminating in a graphic and textual document that he and Horace Albright called a “master plan.” As Vint pithily described it, the master plan was “the counterpart of the city plan; everyone wants to get in the act, [and] the procedure calls for how they get in and out.”

The term “master plan” was widely used among planners, especially after the Department of Commerce used the expression in the standard city planning act published in 1927. The master plan was intended to be the objective and comprehensive record of preset goals for the development of a community. But in practice the master plan, which was intended to guide municipal zoning decisions, often simply recorded them. Zoning without planning was widespread during the 1920s; the national parks, however, offered the opportunity to exercise idealized landscape planning procedures. The national park master plan epitomized the planning goals of contemporary landscape architects and planners in ways that contemporary city and regional plans could not. Regional land use, for example, could be determined completely in a national park, according to the suitability of different areas for different uses. The construction of villages (developed areas) could be guided by authoritative town plans and detailed architectural guidelines. Above all, highway planning could be integrated into the overall goals of the master plan rather than pursued separately by engineers planning independent highway systems. Vint’s master plans successfully curbed road construction in national parks and assured that the roads that were built met high construction standards devised to reduce their visual and environmental impact. The development of national parks in the early-20th century exemplified the regional planning ideals of a certain group of American planners, very much as the municipal landscape park had expressed the civic vision of a previous generation.

Under Director Horace Albright, the master planning process was made official policy at the Park Service by the end of the decade. When the New Dealers arrived in Washington in 1933, Vint’s landscape architectural division had produced detailed master plans for almost every national park and monument under Park Service jurisdiction. The plans included six-year development outlines that prioritized future construction. Drawn over topographic maps of the parks, the master plans depicted all the development deemed appropriate for the park, and so became powerful tools for limiting development. The plans zoned parks into land-use categories, from corridors of discrete “developed areas” that followed park roads, to vast tracts of back country, described as “wilderness,” which was to remain forever roadless. Circulation systems (trails, fire roads, and park roads) each were drawn on separate sheets, which together described an interlaced pattern of different ways of moving through the park—a planning procedure that revealed Vint’s considerable debts to Olmstedian theory and practice.

Other sheets, drawn at more detailed scales, provided site plans of individual entrances, villages, and other developed areas. Together, the plans and outlines of the master plan described an ideal process of regional planning.

That spring, as Congress hastily enacted emergency spending legislation, the schematic and
partially developed designs contained in the master plans were immediately converted into construction drawings, initiating a decade of unprecedented national park development. The Park Service was also put in charge of planning and design for all state (and many county) parks built with New Deal funds. National park master planning procedures subsequently were used to plan park systems in 47 states, and in the design of more than 560 state and local recreation areas.\(^\text{7}\) With labor provided by the Civilian Conservation Corps and capital projects funded by the Public Works Administration and other agencies, Park Service landscape architecture enjoyed its heyday.

The Park Service was not alone in expanding its landscape architectural design and construction activities. In 1934, Albert Taylor estimated that 90% of the membership of the American Society of Landscape Architects (all of whom had been unemployed the year before) now worked for the federal government in some capacity.\(^\text{8}\) In a matter of months, the New Deal took American landscape architecture from near dormancy into the most active period in its history. But the New Deal also inevitably altered the profession. Landscape architects who had been estate designers took positions as "technical advisors" to the CCC, as junior landscape architects planning state park and other developments, as foremen supervising work in the field, and as executives in Washington. More and more private offices were closing as professionals took permanent positions within government bureaucracies. Taylor, himself a former estate designer based in Cleveland, was among a number of professionals expressing ambivalence about the "condition of socialism" into which the profession was drifting. "Social currents," he observed ominously, were "carrying us through an uncharted sea under most abnormal conditions."\(^\text{9}\) Taylor's sentiments were seconded by Henry V. Hubbard, the ASLA president and Harvard professor; years of hardship, however, tempered their misgivings. "If we now identify ourselves with those things that are going to be important in the future," Hubbard predicted, "we shall grow with them and find ample opportunity for service...Since, therefore, our ship is about to sail, it behooves us to get aboard."\(^\text{10}\)

The histories of the Park Service and of American landscape architecture converged in the spring of 1933 as this perilous voyage began, and for a brief period the two institutions transformed one another. Expanding on the solid methodology that Thomas Vint had instituted, the Park Service became a landscape architecture factory, producing hundreds of national and state park plans and providing technical supervision for CCC camps all over the country. In 1936, Congress authorized the Park Service to undertake a "national park and parkway plan," the country's first and only true attempt to produce a national, comprehensive plan for recreational land use. By the end of the 1930s, the Park Service had been evolved from a small, tightly focused Western park commission, into a national (and fully regionalized) recreational planning bureau, cooperating with every state government, and with hundreds of park development projects under construction and hundreds more being planned. For its part, the profession of landscape architecture, which had been best known in the 1920s for the design of "country places" for the elite, had been almost totally mobilized to provide services for New Deal recreational planning initiatives.

When a sustained private market for landscape architectural services did reemerge after World War II, it did so under a new set of circumstances. Corporations and other organizations, anxious to relocate out of cities, became the new "country place" clients in postwar America. These important clients embraced of International Style architecture in the design of new headquarters and suburban campuses, and professional landscape designers and educators adapted to the trend. These developments were bound to alter the relationship between the profession of landscape architecture and the work of Park Service planning; Modernist landscape architecture produced its own masterpieces over the next decades, but its usefulness in national park design and management would never be significant. Other changes reflected the political climate of the postwar period. Concepts like national recreational planning suddenly seemed radical, and if the Park Service continued to employ large numbers of landscape architects, the bureau's program of comprehensive recreational planning ended by the 1960s.

Since then, the history of national parks and of landscape architecture seem to have diverged. The preservation and development of national parks in the early-20th century expressed ideal civic arrangements, centered around a public experience of landscape beauty. Visitors were vital to the success of landscape preservation; without people there were no parks, only wild regions of the public domain, easily subject to other forms of exploitation. By the 1960s, however, under the pressures of brutal overcrowding in some national parks, a wider range of park managers and planners came to identify the public as the enemy of preservation. Parks no longer needed to be "opened up for the convenience and comfort of tourists," therefore, as much as protected from the environmental impacts of their attentions. The idea of national parks as public places and ideal
civic expressions shifted to a scientific model of parks as assemblages of environmental systems and ecological communities. Humans had no legitimate place in such a model, since they could only further degrade the environmental purity that presumably preceded their appearance. Park Service landscape architects, many of whom were leading this shift, therefore rejected Olmstedian theory and turned to environmental sciences to replace landscape aesthetics in new planning and design processes.

My own work as a Park Service landscape architect represents another strand of the bureau's institutional history, one which has perhaps taken an unpredicted turn. In 1935, Congress directed the Park Service to conduct a Historic Sites Survey in order to compile a national inventory of buildings and sites of national historical significance. This duty eventually developed into the Park Service's National Historic Landmarks program, which since 1935 has designated over 2,000 such Landmarks. In the 1980s, a renewed interest in the preservation of Park Service rustic architecture led to the designation of a number of park buildings as National Historic Landmarks, 11

In 1993, I was asked to research the history of Park Service landscape architecture with the goal of designating a series of National Historic Landmarks that would identify the best examples of Park Service landscape planning and design, as the completed architectural survey had for individual buildings.

It was soon clear that, considering the scope and significance of the "park development" undertaken by the Park Service since 1917, the identification of appropriate Landmark Districts would be problematic. Most of the national park system as we know it (and a number of the nation's finest state parks systems as well) were planned and developed by the Park Service between the World Wars. The national park system certainly had been initiated in the 19th century, and there have been many significant postwar additions as well; but to a great degree the image and the facilities of the most popular components of the national park system are constructions of the 1920s and '30s. Above all, they are (like the National Historic Landmarks program itself) products of the New Deal. Scenic roads engineered for automobiles and lined with crenelated guard walls; "rustic" architecture and construction details; campgrounds, picnic areas, and administrative villages; the visual character of many of the developed portions of national parks embody the planning and design goals that Daniel Hull, Thomas Vint, and their colleagues provided.

Much of the national park system, in other words, does not just contain certain historic resources (such as buildings); it is itself historic. Its planning and development represent the goals and aspirations of certain portions of early-20th-century American society just as surely as many municipal park systems embody related civic visions of the 19th century. This awareness of the cultural and historical significance of large "natural" parks (in addition to their obvious biological significance) indicates that conceptual models of national parks continue to evolve, as they always have. The preservation of the national park system as unique cultural infrastructure, for example, is beginning to be considered alongside the mandate to preserve (as best we can) undisturbed ecological communities and environmental systems.

The designation of National Historic Landmark districts that encompass monuments of Park Service landscape architecture requires that the Park Service recognize the significance of its own historical planning activities. The circle is completed when we consider that many Park Service landscape architects are now actively involved in the preservation of Park Service landscape architecture. This all may seem self-serving, but landscape architects employed with historic municipal park systems have been in similar situations for decades. Even historic preservationists have come to realize that the history of historic preservation has its own monuments, and that restorations often tell us far more about the restorer than the restored. Scenic preservation, too, has its history and monuments, and designating Landmarks of scenic preservation involves an analogous and similarly introspective recognition that scenery and wilderness are cultural constructions, not absolute values.

The National Historic Landmark districts of Park Service landscape architecture to be designated this year will necessarily include large areas of "natural" significance within their boundaries. Five state parks, for example, will be nominated in their entirety as outstanding examples of landscape architectural planning. The Park Service has been more reluctant to see its larger (more "natural") parks designated as Landmarks in this com-
prehensive manner. At Mount Rainier National Park, for example, a comprehensive district has been drawn that includes virtually every "developed area" in the park, but which excludes the park's "wilderness areas," despite the fact that those areas first received such protective designation through the historic park development process of Thomas Vint's master plans. There is an understandable reluctance to compromise the clarity of the current distinction between "natural" and "cultural" resources, but describing different portions of parks as either cultural landscapes or natural landscapes obscures the fact that national parks have succeeded by infusing primeval places with cultural value. The preservation of areas designated as parks has been achieved primarily by encouraging the perception of places as scenery—as landscapes—which deserve protection. Segregating districts of cultural significance within larger park landscapes represents only an interim step in an evolving sense of the cultural constructions of wilderness and scenery in the context of American national parks.

The most important result of the designation of these Landmark districts is their potential for affecting park interpretation and planning in the future. Landscape architecture and the National Park Service have indeed grown more distant in the last three decades. Park development and landscape preservation today are often characterized as mortally antagonistic, not mutually enabling. The symbiosis that took both the Park Service and landscape architecture to their highest points in the 1930s has been reduced to a historical interest. But today both state parks and national parks face unprecedented threats. Many state governments see their state parks as underdeveloped resorts. Strapped for cash, legislators look to new conference centers, ski resorts, and golf courses not only to cover the cost of park administrations, but to turn a profit. National parks potentially face an almost opposite, but related fate. As existing facilities become more and more crowded, the parks will cease to be public in any meaningful sense, since only those who make reservations far in advance will have access. And federal budget cutters and environmentalists alike have recently agreed that raising park entrance fees would serve both their interests, in one case by exploiting the profit-making potential of parks and in the other by further restricting public access.

National Historic Landmarks of Park Service landscape architecture can perhaps serve to remind both parties of the significance of what was achieved in the 1920s and '30s: the creation of a middle ground between excesses of commercialism and of exclusivity. In an era of increasingly strident extremes, the historical partnership of landscape architecture and the National Park Service may yet serve as a viable precedent for preserving scenic landscapes by planning for limited recreational uses of public lands.

3 Daniels was paraphrasing an earlier comment by Secretary Lane in the first portion of this observation. Department of the Interior, 1915 Annual Reports, 843, 849.
6 Herbert Evison. Interview with Thomas Vint, 1960, p. 10. Transcript in Thomas C. Vint Collection, Papers of Charles E. Peterson. Horace Albright was responsible for the official use of the term "master plan."
8 Taylor was the managing editor of Landscape Architecture magazine at the time. Albert D. Taylor, "Notes on Federal Activity Relating to Landscape Architecture," Landscape Architecture 25, no. 1 (October 1934): 41.

Ethan Carr is a historical landscape architect with the Park Historic Structures and Cultural Landscapes Program, NPS.

Photos by the author.
Matthew Nowakowski

New Approaches to Disaster Response

Tom Hayes, an intern at CHOH, uses a mobile GPS unit to gather data along the Potomac River for inclusion in the Geographic Information System being developed at the park.

We live on a planet composed of dynamic systems: it is a fact of life that many of our cultural and natural resources are at-risk for natural disasters. This is especially true when the transformative power of water is unleashed. Within minutes, culturally-significant areas can be seriously impacted at a recovery cost measured in millions of dollars.

Due to a spate of bad weather early in 1996, the Chesapeake and Ohio Canal National Historical Park (CHOH) was inundated with a significant natural flooding event on the Potomac River and its tributaries that did extensive damage to historically-significant property.

When a disaster occurs, it is standard operating procedure to assemble a disaster response team traditionally composed of park officials and an interagency task force. Recently, a nontraditional element has been added to the disaster response team: mapping professionals who specialize in geographic information systems (GIS). GIS consists of both hardware and software programs that combine spatial attributes and thematic map layers with information such as census records, tax parcel boundaries, natural resource data, historic maps, and historic site inventories.

GIS can also incorporate feature data recorded using Global Positioning System (GPS) satellites and software programs.

In the case of CHOH, an incident command team headed by Superintendent Doug Faris was quickly assembled to document and repair the damage. To facilitate this project, a GIS database is being created. A GIS database can provide precise locational information depicting park features and the extent of flood damage. GIS is also useful in showing relationships between natural and built resources while incorporating data from other pertinent sources such as the National Register of Historic Places, List of Classified Structures (LCS) records. (It is estimated that there are more than 1,250 structures and features eligible for National Register nomination on the C&O Canal.) A GIS database will also allow the response team to visualize alternative plans for restoring the park's cultural resources while maintaining a permanent record of recent and past flood damage or impacts. This is especially important when considering the total amount of funds that may be required to repair the flood damage: currently, the total estimate of flood-related damage exceeds $25 million.

The Branch of Mapping and Information Technologies (BMIT), Heritage Preservation Services Division of the Cultural Resource Stewardship and Partnership Center offered its expertise to assist in these important efforts. BMIT is a national program which operates the only Cultural Resource Geographic Information System (CRGIS) facility within the National Park Service (NPS). Although CHOH had already started the process of establishing a GIS program prior to the floods of 1996, it was clear from the extent of the damage that this initial GIS effort needed outside assistance. Most recently, BMIT staff have been mapping various Civil War sites in the metro-Washington, DC area. It was an easy transition to begin mapping and recording data features along the towpaths of the Chesapeake and Ohio Canal.
Marie Frias is the GIS Coordinator at CHOHO. The GIS program at CHOHO is relatively new; a complete dataset for the length of the canal (184.5 miles) has not been developed and historical features have only lately been accurately mapped. In order to expedite this process, Nell Dieterle and Tina Kapka, GIS specialists for BMIT, have been assisting Frias and her small staff of rangers and volunteers with the tedious process of data development using existing United States Geological Service (USGS) digital data, as well as GPS mapping data. GPS spatial data gathered on-site with hand-held computers is downloaded into a PC-based program that is capable of processing the data into a baseline map. The particular GPS units used by Frias and BMIT are accurate (under the best circumstances) to within one meter. Any recorded discrepancies can be rectified when the data is downloaded and processed. Maps can then be “layered” with additional features and geographic-based information sets within a GIS software program.

Because of the large amount of data and the need to quickly repair this popular park, BMIT staff have also been working to process GPS spatial data at the CRGIS facility in Washington, DC. Once processed, this data will be input into the GIS database and then linked with the existing database (LCS) of the park’s historic structures to provide a complete picture and permanent record of all historic properties within the park. Other data, such as National Register properties, National Historic Landmarks, National Natural Landmarks, nearby NPS park units, CHOHO park boundaries, roads, streams and elevation data will be processed by both Frias and BMIT staff and added to the park’s GIS database. Peak flood data will be acquired from USGS flood gauge stations on the Potomac River. This data will help in the process of analyzing patterns of flood impacts over the years.

Park officials will be better able to monitor flood damage for both short-term and long-term resource planning, once the GIS database is operational. For example, the disaster response team will be directed to vulnerable areas based on direct geographic location. Also, the park will be in a position to react decisively to a wide range of problems that necessitate and require the use of maps and detailed databases. In the immediate short-term, the GIS database will assist in correcting recent flood damage by clearly establishing the park’s natural and cultural features as well as its boundaries prior to the flood. In the long-term, through sustainability planning, the superintendent and other professionals will be prepared to address future emergencies. By establishing a GIS database now, data on the park’s assets can be changed as the park evolves or as it is affected by natural disasters.

CHOHO and BMIT share a common goal: creation of a strong GIS database foundation upon which to build for the future. It is clear that CHOHO will continually experience damage to the park’s assets from flooding. Recording the patterns of these historic and more recent floods will paint a picture of what resources will be required to maintain a level of services in a park that is enjoyed by untold numbers of annual visitors. <Image 5, map>

GIS offers many benefits to cultural resource managers. To that end, the CRGIS facility is working to provide the NPS with a standard GIS model that can be replicated throughout the park system to provide consistent results. GIS will aid the NPS and its cultural resource partners on many levels: identification of resources; creation of accurate maps showing both natural and cultural resources; establishment of databases to enhance park facilities maintenance; and future interpretive applications for enhanced visitor understanding of the cultural and natural landscape. Those who maintain and conserve the park’s resources will, ultimately, be more effective.

The CRGIS facility maintains a number of goals to assist the NPS in fulfilling its mission. These include development of spatial (map-related) and digital applications to assist the parks with systematic resource inventories, resource pro-
CHOH started its GIS program in 1995—prior to the damaging floods that occurred in 1996. This map shows the historic Pennyfield House located within the park's boundary. The map was created using GPS in the field and GIS in the office: it was prepared as part of the historic structures leasing program to accurately display the location of the historic features, existing modern day features, as well as adjacent utility features. Utility companies will receive a copy of the map as a plan for consideration of on-site utility installation. Even if this area was completely flooded and its natural and historic features destroyed, the GIS system would help park officials to locate and reconstruct the relevant features.

A small section of the 184.5 mile-long C&O Canal NHP depicting the southern terminus in Georgetown. The towpath data was created using GPS technology by Nell Dieterle, Cartographer, and Tina Kapka, GIS Specialist for NPS, Heritage Preservation Services, Branch of Mapping and Information Technologies (BMIT).

Matthew Nowakowski is a systems analyst working in Heritage Preservation Services, NPS.

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For information about the CHOH GIS program: Marie_Frias@nps.gov.
The Automobile Landscape

The following articles feature various perspectives on identifying and preserving important aspects of the automobile's historic impact on our built environment.

First, a photo essay illustrates properties listed in the National Register. Carol Ahlgren's article offers a personal perspective on recognizing the human component to this preservation story, the need for including historic roads in survey efforts to assist State Historic Preservation Offices identify those significant resources that survive, and recent preservation awareness efforts on the Lincoln Highway in Nebraska. W. Dwayne Jones' article chronicles the family history behind the Pig Stand drive-in restaurant chain as it evolved from 1921 to the present.

Jeff Winstel's article describes the current reuse of a 1940s service station building in a historic canal town, a unit of the national park system. And Dennis Montagna's article laments the loss of a modern 1960s service station designed by architect Vincent Kling that no longer fits today's "gas and shop" corporate retailing formula.

Beth L. Savage

Road-related Resources Listed in the National Register

Historic transportation corridors and the cultural landscape of the automobile in America have received much attention of late in various venues. The Society for Commercial Archeology, the nation's oldest organization promoting the appreciation and preservation of road-related cultural resources, is approaching 20 years of service. Associated historic properties have been recognized in the National Register of Historic Places program throughout its 30-year history—over 2,200 properties illustrate historic road-related functions. Roads and bridges, tourist cabins and motels, gas stations and garages, shopping centers and restaurants, and tourist attractions and recreational facilities catering to the needs and desires of the automobile traveler reflect this rich, but quickly disappearing, legacy. Here are a few recent examples from around the country.

Beth L. Savage is an architectural historian with the National Register of Historic Places, National Register, History & Education Program, NPS.

For more information about membership or activities of the Society for Commercial Archeology, please write to SCA
P.O. Box 2324
Atlanta, Georgia 30301-2324
or call 202-882-5424.
In response to the dramatically increased demand for automobile parking in the downtown central business district, the Imperial Garage, Portland, OR, was built in 1923 as the city's first multi-floor parking garage constructed specifically as an automobile parking garage. Photo by John M. Tess, Heritage Investment Corporation.

Camp O' the Pines (now the Log Cabin Motel), Pinedale, WY, was the town's first and only cabin camp constructed in 1929 to serve the growing auto tourism business during the Depression era. Photo by Richard Collier.

Completed in 1921, Florida State Road No. 1, Santa Rosa County, FL, was the first paved highway in West Florida. This six-mile long, 24' wide brick section of the road was planned as part of the Old Spanish Trail from Jacksonville, Florida, to the Pacific Ocean. Ironically, in 1977, bricks removed from a half-mile long section at the eastern end of this original road segment were used to construct a memorial sidewalk commemorating the historic Old Spanish Trail. Photo by Barbara E. Mattick, Bureau of Historic Preservation.
Designed by Rapid City architect James C. Ewing in 1929, the Motor Service Company, Rapid City, SD historically advertised both sales and service of many makes of automobiles. Owned and operated by the Morrison family since its opening, the business is significant within the state's historic context entitled, "The Depression and Rebuilding: New Transportation Facilities and the Impact of the New Automobile." Photo by Christina Slattery, U.S. West Research, Inc.

The Embassy Gulf Service Station, Washington, DC, was designed in a Neoclassical mode as an example of "artistic" stations intended as miniature civic monuments. Because of its location, this design by architect Pierre L.R. Hogner was subjected to the design review scrutiny of the Commission of Fine Arts and the National Capital Planning Commission. Photo by Traceries.

Built around the opening to the cave that shelters the largely underground Crystal River, the imaginative buildings of the 1934 Crystal River Tourist Camp, Cave City, AR, are described as mason Prince Matlock's "Mannerist" interpretation of the organic rustic style of automobile tourist camp. Photo by S. Mitchell, Arkansas Historic Preservation Program.
Since 1992, the Nebraska State Historic Preservation Office has incorporated documentation of the Lincoln Highway into its statewide historic buildings survey. Dedicated in 1913, the Lincoln Highway was the first transcontinental highway, intended as a toll-free paved road providing the shortest distance between New York and San Francisco. The highway was also a visionary memorial: a coast-to-coast "monument" to Abraham Lincoln.

In Nebraska, the Lincoln Highway represents an early-20th-century addition to the historic Platte River valley where routes of the Overland Trail, Pony Express, and Union Pacific main line traverse the state in a relatively narrow corridor. Completion of Interstate 80, the most recent addition to this corridor, has contributed to the decline of businesses and towns along the original transcontinental route. The period of gradual abandonment of the old road, which has left associated buildings altered for new uses or in ruins, may be considered as part of the evolution of their preservation. The abandonment, decline, and in some cases disappearance of tangible evidence of historic highways often creates the inspiration to rediscover, document, and preserve what remains.

In many places in Nebraska, the Lincoln Highway has come full circle and has returned to what it was before—a gravel section line road that closely parallels the Union Pacific railroad tracks. The highway is once again the road that leads to town, and the road home. Much of the original Lincoln Highway is now U.S. Route 30, but earlier sections remain: narrow gravel or concrete roads, brick-paved streets through small town main streets, individual motel courts, and gas stations.

Continued documentation of the original and subsequent routes of the Lincoln Highway and its associated resources is essential to evaluate what remains. Survey and evaluation, it is hoped, will lead to the preservation and rediscovery of this pioneer automotive trail. Attention given to the documentation of historic highways is a relatively recent addition to the field of historic preservation. While examples of National Register nominations in recent years cover a range of resources such as early road segments and associated buildings, by their nature many of these roadside resources are ephemeral. Some of the building types, such as individual motel cabins, were altered within a decade of their construction. In other cases, construction was make-shift and temporary, making the buildings easy to remodel or relocate.

Roadside architecture (including "attractions" such as tepee gift shops and windmill gas stations) have typically been the focus of early efforts to document and designate resources associated with the automobile. Roadside architecture, however unique and eye-catching, is only one component of the highway as an historic transportation corridor. This is especially evident in a place like Nebraska, where buildings and towns are often separated by vast rural areas.

Comprehensive surveys of highways as historic transportation corridors enables preservationists to understand these resources within their larger context. Another perspective which further enhances the study of historic highways is to view them as cultural landscapes. Such a perspective involves including the human response—both current and historic—the stories of individuals who lived beside the road, travelled on it, or made their living from a roadside business. These stories and memories of the road may explain what is there now, but also may be the only connection for buildings and places that are long gone.

The highway as cultural landscape encompasses the evolution of the road, its resources through time, as well as its historic and continued
meaning for people. In western Nebraska, for example, an original 1928 concrete Lincoln Highway marker has become a flag pole and elaborate bird house stand for the older man who lives nearby. One small town in eastern Nebraska features a one-sided, one block-long main street which parallels the original Lincoln Highway, the railroad tracks, and U.S. Route 30. The original route is clearly visible, marked by an "alle" of Hackberry trees; the park-like setting is mowed and maintained by local residents.

Conversely, in several areas, farmers have planted rows of corn in the narrow right-of-way between the Union Pacific tracks and U.S. Route 30. Many of these areas which represent the original Lincoln Highway roadbed are not seen as an historic highway but as a means to increase crop production.

Sometimes, there are few resources to record in the traditional preservation sense. It is easy to lose sight of, or not understand, the historic and current importance of the highway to local residents. Clarks, a small Merrick county town in eastern Nebraska (1990 population: 370), provides a good example. Established in the 1870s along the Union Pacific railroad line, the original town consisted of frame false-front buildings parallel to the tracks. Typical of towns throughout the Great Plains, most of the original commercial buildings burned or were torn down.

In 1912-13, the designation of the route of the Lincoln Highway had an impact as tremendous as the railroad that preceded it. Merrick County residents had been enthusiastic boosters of the Lincoln Highway—so much so that the nation's first signing of the Lincoln Highway proclamation occurred at the county courthouse in Central City, 12 miles west of Clarks. The original Lincoln Highway into Clarke was a gravel section line road parallel to the Union Pacific tracks. When the highway was redesignated as U.S. Route 30 in the late 1920s, the route through downtown Clarks was by-passed; the old and new highways are separated by the Union Pacific tracks.

Today, the original route of the Lincoln Highway is a two-mile stretch of gravel road that extends east and west from the downtown. The road is gravel with the exception of a two-block area of wide brick paving at the heart of downtown, where the main street is perpendicular to the historic road and railroad tracks. Many of the one-story brick commercial buildings have been altered and several are vacant, leaving little to document except the road itself. Across the tracks on U.S. Route 30 are two early motel complexes, which reinforce the physical evidence of the highway's evolution.

Nonetheless, the Lincoln Highway was and still is important to the community. Last year, near the main downtown intersection, high school students painted a mural on the entire side of a brick building. The building fronts the extant brick section of the old road, and the mural includes a depiction of the Lincoln Highway running through town. During the mural painting, older residents prepared stories for the newspaper about their memories of the Lincoln Highway. Lincoln Highway enthusiasts enroute to the Lincoln Highway Association convention in Cheyenne, Wyoming were feted by the community. The residents lined both sides of the street and greeted cars on their way to the conference, proclaiming the celebration "Lincoln Highway Day."

Recently, area residents resurrected the enthusiasm and pride of original Lincoln Highway boosters. Present-day residents of Clarks painted the historic red, white, and blue logo on telephone poles along the two-mile segment. By re-marking the highway, the residents of Clarks celebrated its historic connection to their community. They also proclaimed their pride in being known, once again, as a town of the Lincoln Highway. For Clarks and hundreds of other small towns on the Lincoln Highway, the intangible and less visible aspects of the highway are as important as the resources which remain.

As preservationists grapple with the issues of documentation and integrity when recording segments of road and individual roadside buildings, we need to keep in mind the highway as a cultural landscape that connects both places and people with history and memory.

Carol Ahlgren, architectural historian, is the Survey Coordinator for the Nebraska State Historical Society.
What's New with the Pig Stands—Not the Pig Sandwich!

We might have forgotten the Pig Stands story long ago if it were not for its enduring pig sandwich and tenacious family ownership. On September 15, 1996, the Texas Pig Stands company celebrated its 75th year of continuous operation, an accomplishment few roadside industries can match. The Pig Stands history is familiar to readers of roadside literature, but for those who are not, the following brief review and update may enlighten you.

In September 1921, the nation's first drive-in restaurant, the Pig Stand, opened in Dallas, Texas, at the corner of Chalk Hill Road and the Dallas-Fort Worth Turnpike. It was not much to see—really just a small board-and-batten stand set back on a corner lot—but it was destined to revolutionize the food industry in the United States.

The Pig Stand concept was simple: take a basic popular food item, the Tennessee barbecue pork sandwich, combine it with a soft drink (in some locations a Budweiser), and package both with convenience and a fad of the period, the automobile. Thus was born the drive-in restaurant of businessman and entrepreneur Jesse G. Kirby and his financial partner, physician Reuben W. Jackson. These men reasoned that America's love affair with the car would affect the restaurant business, as it already had transcontinental travel and highway construction.

Their drive-in was an overnight success, as the curious and hungry alike converged on the stand to sample the pig sandwich and to be waited on by young men wearing white caps, white shirts, and black bow ties. A word was coined to describe these waiters—"carhops"—because they ran to approaching vehicles and hopped on the running boards before the cars had come to a full stop. As early carhops worked for tips alone, the competition for customers was keen.

At first, Pig Stands were typical roadside stands in a rectangular form with detached barbecue pits at the rear. Large horizontal unglazed windows on three sides fell slightly above the carhops' waistlines, providing them with a counter, and were covered by a wooden panel that dropped down when not in use. The upper facade, lower facade, and sometimes the roofline became prime advertising and menu space. Phrases like "Eat a Pig Sandwich," "America's Motor Lunch," or "A Good Meal at Any Time" were interspersed with silhouettes of pigs and essential information like the current menu and the number of the Pig Stand outlets. Another phrase appeared on the early stands, "Quick Curb Service." "Curb service" literally meant service offered to automobiles lined up along the curb. It is also quite clear that the street provided the only parking space, thereby allowing customers to either walk up to the stand or stop their automobiles along the curb.

It was not long before the Pig Stands were cropping up in other parts of Texas and the nation. By 1925, Dallas alone boasted six locations. Between 1921 and 1934, more than 120 Pig Stands were built in Texas, Northern and Southern California, Louisiana, Mississippi, New York, Florida, Oklahoma, Arkansas, and Alabama. Many of the new stands were operated as franchises, but the Pig Stand Company maintained most of the Texas locations as a family operation.

Although Jesse G. Kirby died within a few years of the first drive-in opening, his son and family worked in Dallas area stands as did members of the Reuben Jackson family. By 1924, the company began to add professional staff to its family-based operation. Sid Lake, a Dallas banker, and others like him, began to transform Pig Stands into a first-class business and prototypical "drive-in restaurant."

The company's image appears to have evolved quickly after professional input in the mid 1920s. Photographs of early stands like Pig Stand No. 18 in Los Angeles (estimated to have opened in 1925) indicate the addition of counter service on stools and signage extended from the roofline. Signage, either attached to the roof or freestanding along the street, became one of the most important new features of the business. In 1922, Pig Stands introduced the neon silhouetted pig described as "in a natural walking position, head down, with the words 'Pig Sandwich' extending from shoulder to hind leg, midway of the body of the hog." The company registered the design, later referred to as the "Sign of the Pig," with the U.S. Patent Office in 1924 (though they did not renew the registration until 1965). This sign and the pig sandwich would be the center of a 1930 court case with the
Dixiepig Corporation and again in 1992 with Hard Rock Cafe.

The first uniform architecture for the Pig Stands Company also emerged in the mid 1920s, probably in 1926-27. The design consisted of a red-tiled pagoda-like roof set on a rectangular building framed of wood and covered in stucco. Three to four large wooden sash windows dominated at least two and sometimes three facades and were covered with advertising or the menu selections. The lower sashes lifted up behind the upper sash creating a counter space for walk-up customers. Variations of the uniform design were found on stands depending on climate and owner preference.

Two significant innovations were initiated at the same time. First, the use of globe lights set on ornamental terra cotta bases on each corner and incandescent lights under the eaves transformed Pig Stands into nighttime activity centers. Lighting, which had become popular with all roadside businesses by this point, existed to attract automobile drivers traveling at increasingly higher speeds as well as allowed for expanded hours of operation. A 1927 newspaper advertisement claimed over 5,000 people in Dallas alone had their evening meal at the Pig Stands. “It’s a popular habit to drive to a Pig Stand in the evening, before or after the show, or while out for a drive. Why? Because Pig Sandwiches are something different in taste—yes, unusual! ...Join the 5,000 and avoid the bother of the evening meal,” exclaimed the advertisement.

A second innovation also appeared. Automobiles no longer lined up along the curb but parked head first into the building. Photographs dating from the late 1920s indicate that the new pagoda-like buildings were set back more from the street to provide ample room for head-in parking. This arrangement completed the transition from curb service to drive-in restaurant. Although the 1920s design has yet to be attributed to a professional architect, it was an obvious effort to develop a corporate image through architecture. The outline of the building and signage appeared in many forms of company advertising including newspapers and match book covers. A customer could at first glance recognize the Pig Stand image and connect it to the famous pig sandwich.

Architectural design took a slightly different look in the California Pig Stands. By the late 1920s, an octagonal form appears rather than the rectangular design used elsewhere. Still built as a wooden frame structure with a heavy incorporation of advertising on the principal facades, the new form allowed greater visibility from the food preparation area to the now surrounding parking lot. Two photographs of Pig Stand No. 23 suggest that this wooden frame building became updated by the early 1930s with tile, a slightly more refined advertising image, and a large overhead neon “Sandwiches” sign. It is this creative use of the roof that may have led to the large roof pylons associated with later drive-in restaurants.

By the mid 1930s, Pig Stands were into a new phase of architectural design similar to other drive-in restaurants appearing in California and Texas. Circular, streamlined facades with large surrounding parking lots began to appear on new stands to keep up with the now stiff competition. Neon, generously displayed on facades and signs, completely replaced the earlier globe lights to attract customers.

Although customer demand prompted the company to expand to full service dining by the end of the 1930s, World War II brought a close to the unprecedented growth of Pig Stands. Business continued to be good, but it became more difficult to secure supplies during the war and gas rationing limited travel. Slowly, the stands were sold off, many to employees. The company practice of selling to employees was actually a continuation of the earlier company practice of selling franchises.

In 1955, Royce Hailey, who began his tenure with the restaurant chain in 1930 at the age of 13 as a carhop in Dallas, became president of the company, which was still largely under the ownership of the original investor, Dr. Jackson, and his family. Although all out-of-state operations were sold by 1959, the company continued to operate chains in major Texas cities. In the 1960s, Hailey and several other people acquired the company's stock; he became the sole owner in 1975. In addition to his business expertise, Hailey is credited with developing Texas Toast in 1941 and the chicken fried steak sandwich in the 1940s. In 1983, Hailey sold his interest in Pig Stands to his son, Richard.
Today, Pig Stands can be found in Beaumont, San Antonio, and Houston. Richard Hailey remains dedicated to preserving the heritage of the Pig Stands, and serves as the unofficial historian for the company. The company capitalizes on its history in marketing and promotions, and is considering rehabilitation of the Pig Stand on Presa Street in San Antonio, the only 1920s building still in existence. Recently, Richard Hailey acquired the squatting pig, the well-publicized programmatic structure found a few miles east of the Presa location, and relocated it to his parking lot for rehabilitation. It now sits a few feet away from Hailey’s office in a modified Weber Root Beer stand and is the centerpiece of his own outdoor museum.

For those of you who have not visited a Pig Stand, the original pig sandwich is still on the menu and the company continues its great traditions under family supervision and a glowing “sign of the pig.”

This article was written by Dwayne Jones, Assistant Director, National Register Programs, Texas Historical Commission, with assistance from Roni Morales, Managing Editor of the Texas Historical Commission’s Medallion.

Jeff Winstel

Petroliana and the Cultural Landscape
Preserving a Gas Station in a Historic Canal Town

The built environment of Boston, Ohio conveys a sense of small town nostalgia. More than the individual historic elements, it is the physical nearness of juxtaposing historic periods that creates a feeling of casualness and accessibility. A visitor to Boston experiences something similar to discovering a rare find at a flea market rather than viewing an interpreted and carefully displayed artifact in a museum. The lack of discernable cultural boundaries in the landscape is best represented by the close proximity of the imposing 1836 Boston General Store to the concrete block 1946 M.D. Garage. These two very different structures from very different time periods, oddly enough, work well together; the contrast between them is typical of small towns, where land use boundaries are blurred and the village reads as one community.

In October, the Boston General Store opened as a canal boat building museum. Located along the Ohio & Erie Canal’s un-watered prism and restored towpath, this Federal/Greek Revival structure is strongly associated with the heyday of the canal. As part of the restoration and reuse of this structure, the adjacent M.D. Garage will be preserved and used as a maintenance storage facility.

The preservation maintenance work for the garage is a fairly moderate treatment plan, consisting of repairing the existing concrete block walls, metal lintels, and brick sills and chimney. Deteriorated material was replaced in-kind as necessary. The deteriorated composition roofing on a corrugated metal deck was replaced with a contemporary flat roof system. The light treatment of the garage structure could result in a nondescript structure overpowered by the extensive restoration of the adjacent Boston General Store. Rather than allowing the small M.D. Garage to become completely obscured by the restored 1836 Canal-era commercial structure, the building will continue to add to the texture of the townscape by reintroducing the vintage pumps and signs.

Built in 1946, this single story M.D. Garage is constructed of concrete block. The building is
set back approximately 20' from Boston Mills Road and was fronted by a circular gravel drive that skirted a cement island which held two 1960s gas pumps flanking a tall "Union 76/ Be Sure with Pure" sign. Beneath the transom of the entry door is a small proprietor identification sign: "Marjan Dzerzynski." Next to the door was a porcelain blue and white "Approved Station/ Be Sure with Pure Lubrication" sign. Holes from the bolts that held the sign on the building are still evident. In front of the building stood an old air pump and an old Tokheim pump, presumably for diesel fuel. A hand-painted, wide sign runs the length of the parapet. The white Art Deco style letters spell out M.D. Garage on a black ground with a thin white border. The M.D. Garage embodied many aspects of the typical 1940s era garage: a dealer operated station affiliated with a large oil company providing full repair and maintenance service.

The Streamlined Moderne feel of the building, such as the horizontal bands and stripped down surfaces, is consistent with the design forms alluding to the speed and efficiency of the machine age. Moreover, the straightforward functionality of the building suggests an engineering aesthetic resulting from the combination of use and standard rectangular design elements. In many ways, the characteristics of the M.D. Garage building and business represent the culmination of technological and economic forces that made the gas station a staple of the American landscape.

Prior to the first gas station, gasoline was purchased as an industrial commodity. Turn-of-the-century motorists would have to obtain the fuel from hardware stores. Transferring the fuel into the car was a dangerous and messy procedure. In 1905, entrepreneurs Lessig and Greener started the St. Louis-based Automobile Gasoline Company and greatly improved the issuance of the fuel by attaching a flexible piece of rubber hose to an upright storage tank. The first gas station appeared in 1907, when a Standard Oil of California (Chevron) bulk station operator used an old water heater mounted on a stand to dispense gasoline. By 1910, gas was dispensed from underground tanks using a pump and hose.

Curb pumps soon began appearing alongside city streets and in front of country general stores throughout the country. Although ideal for small towns, curb pumps created traffic congestion in the cities. The Gulf Oil Company opened the first off-street filing station in Pittsburgh in 1913, creating a building type that would become a common landscape element for the rest of the century.

Branded gasoline stations started developing around 1915. These gasoline stations sometimes had elaborate structures, such as pagodas, neoclassical edifices worthy of housing civic offices, and the quaint English cottage used by the Pure Oil Company. By the mid-1920s major oil companies noticed that oil jobbers were supplying unbranded gasoline to repair garages and automotive dealers. By the mid-1920s, these branded gas stations became service stations, offering gasoline and limited automotive maintenance and repair service.

In 1925, 250,000 filing stations were pumping gas nationwide. Three years later, Memphis oil jobber John Mason Houghland developed discount gas. By purchasing the fuel direct from refiners, shipping it by train, and dispensing it at stations along railroad track spur lines, he was able to cut out the middle man. A historic photograph of train tracks in Boston depicts such a filling station.

The tall pumps depicted in the photograph appear to be the type developed and perfected by John J. Tokheim, a Ft. Wayne hardware merchant, in 1906. These compact visible and cylinder-measuring pumps featured a water-separating glass dome. Although Tokheim pumps were a great improvement over the first workable gasoline pumps—designed as coal oil pumps by Sylvanus F. Bowser in 1885—operators could still rig the dial indicator. By the end of the 1920s, electric meter pumps with clock face indicators began appearing along street curbs. These pumps signaled the delivery of every gallon of gasoline with the ringing of a bell.

Like many country stores that sold gasoline, the "Volunteer Food Store" shared the marquee with oil company signs. Painted tin gas station signs were common elements of the commercial landscape. These were soon accompanied by the more durable porcelain enameled signs, a finish
created by fusing powdered glass onto metal sheeting with a high heat process.\(^4\)

Dealer-operated stations came about in the 1930s. With the passage of chain store taxes in several states, oil companies were taxed for each location operated by a single firm. Standard Oil of Indiana responded by firing all their station employees and then giving them the option of leasing the station back.\(^5\) This started the trend of company-operated stations becoming dealer-operated stations.

To bolster sagging revenues during the Depression, many stations started selling tires, batteries, and accessories. Stations consolidated repair bays, lubritoriums, and tire services under one roof. Gas station architecture also changed during the 1930s.

Streamline Moderne became the dominate style, incorporating speed lines, curved corners, and other design elements reflecting the illusion of speed. Gas station design began to relate to the automobile, instead of mimicking the architecture of accepted building types, such as cottages and civic monuments. Gas stations and the automobile had become fully integrated into the American landscape and lifestyle.

A change in pump technology in 1932 also altered the way people purchased gasoline. The Wayne Pump Company, a Ft. Wayne, Indiana company formed by former S. F. Bowser and Company employees in 1891, introduced the first calculator pump. Instead of reading a dial indicator for gallons dispersed and then consulting a price chart, station attendants now simply read the calculated figure on the pump. This innovation made all existing pumps obsolete and forced the competition to license the patented technology.\(^6\)

As the forms that defined the skylines of the American city changed in the 1930s, so did the shape of gas pumps. Gasoline dispensers started mimicking the forms of modern streamlined skyscrapers, as did many products of industrial design. The machine aesthetic created contoured cowlings that sheathed mechanical components and conveyed a sense of efficiency and speed to the motorist.

World War II brought gas shortages that forced many track side discounters out of business. Station owners with long-term supply contracts survived, in part, by emphasizing repair service.\(^7\) With the end of the wartime gasoline and tire rationing, Americans took to the road like never before. Corner service stations had become automotive repair stations and dealers learned to merchandise their services. Oil companies confidently proceeded to sell every drop of oil they produced.\(^8\)

The Interstate Highway Bill of 1956 had a profound impact on gasoline marketing. Thousands of once-thriving gasoline stations became outmoded and modifications were made to the ones that survived. High-speed visibility was achieved by large, internally-lit plastic signs mounted on huge "high rise" posts. Motorists were traveling much faster and needed more time to stop and pull in for a fill-up.

The 1993 Cultural Landscape Analysis and Design Recommendations for Boston, Ohio contains general principles that are consistent with replacing the vintage pumps and signs that were removed from the M.D. Garage in the Fall of 1995. The vernacular and utilitarian characteristics of Boston are discussed in terms of a sense of honesty; things are what they seem. The mix of different periods has typified Boston throughout its history and should be continued.

Preserving the irregularity and casualness of the community should be done by retaining the informal mix of commercial, residential, and recreational functions. Historic photographs of the garage provide the documentary evidence needed to accurately replace the M.D. Garage missing signs and pumps with restored vintage signs and pumps. Reintroducing these small-scale elements will allow the building to continue contributing to the informal mix of functions and periods that comprise Boston's historic vernacular landscape.

References
2 Henderson, Gas Stations. 5.
3 Witzel, Gas Station Memories, 39.
4 Ibid., 44.
5 Henderson, Gas Stations. 6.
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7 Henderson, Gas Stations. 7.

Jeff Winstel is a historian at Cuyahoga Valley National Recreation Area, Brecksville, OH.
This is an obituary for a one-of-a-kind service station that died young, succumbing in the 30th year of its age. 

Designed in 1964 by architect Vincent Kling for the Atlantic Richfield Company, the station was a well-known landmark at the corner of U.S. Route 1 and State Road 23 in Bala Cynwyd, Lower Merion Township, just outside Philadelphia. It was distinguished by its triangular plan and its tall, pressed aluminum roof formed by diamond-shaped baked enamel tiles.

The design was well-suited to the station's corner location. The building's triangular plan facilitated access by cars pulling in and out of the pump area and service bays, and the glass-enclosed central office allowed for a commanding view on the part of service station attendants who, you may recall, still pumped gasoline for motorists in the 1960s.

On the eve of the destruction of the service station in 1993, Kling, now 80, discussed the station's creation in 1964. Atlantic Richfield's corporate offices were then located in Philadelphia and the company had commissioned Kling to design a prototype for a new generation of service stations. But by the time the building was completed, the company had retreated from this plan. Whether it was the unorthodox nature of the design or the construction costs associated with it, those of the roof in particular, the plan never became a standard Atlantic design. Kling talked about the philosophical basis for this station's design, "Instead of a great big sign saying, 'I'm here to peddle gas,' you have a building with some aesthetic posture. You have a big roof with tiles instead of a big sign with neon lights. Let the architecture say, 'I'm here to pump gas.' It's an educated way to do a plebeian thing."

But the station's unique form made it resistant to the shift away from automotive service and toward convenience store functions that has developed since the 1970s. The Atlantic Station's service bays were enclosed and much of its glazing gave way to solid walls that allowed non-automotive merchandise to fill the triangular space. The station became one of Atlantic's A-Plus Mini-Markets in 1988, but it never fit a corporate ideal that retailers' derive as much revenue from food and convenience items as from gasoline sales. When the Sun Company [Sunoco] acquired the station in the early 1990s, it decided to replace the building. Explaining why the station had been slated for demolition, Sun Company spokesperson Paul Durkin said, "It's certainly an interesting design, but it's not very functional for its use...If you go into any A-Plus food store you can see there is a logical process to everything, the way traffic flows. That station is now a make-shift jury-rigged food market."

Kling agreed that the building was not well suited to its new use, "It was not designed as a food store. It was designed as a quick-service gasoline sales center, with a neighborly relation to what is around it, instead of the commercial junky look of most stations."

But neighborliness held little attraction for its new owners. Durkin expressed the Sun Company's view, "If you go into one [A-Plus] in Pennsylvania it should look just like one in New York. We don't want 15 differently designed buildings so people will be confused."

Attempts by local preservationists to dissuade the Sun Company from carrying out its decision to demolish the station proved futile. Architect Robert DeSilets, chairman of Lower Merion Township's Historical Architecture Review Board, led a two-year effort to convince the station's new owners that they had acquired a building that, while not ideally suited to the company's highly regimented system of quick shopping, was significant and worth preserving. Such arguments carried little weight in the face of a clear corporate mission that saw building standardization as a must.
So, the old Atlantic station is gone, replaced within days by one considerably less radical—a standard, pre-fabricated rectangular convenience store fronted by a massive freestanding canopy towering above four banks of gas pumps. While customers might be bored by the generic new station, the Sun Company can rest assured that they certainly won’t be confused by it.

Beyond the loss of a one-of-a-kind service station, this demolition serves as a case study that speaks to the challenges of preserving resources of the modern era. This building was the victim of both a lack of broad popular interest in modernist buildings, as well as specific changes in the nature of contemporary gas stations. Buildings of this type and age are especially at risk and are likely to become more so.

Lower Merion Township includes a broad spectrum of architectural resources from a highly-prized late-17th century Welsh Quaker meeting house to the Main Line suburban homes of Philadelphia’s 19th-century industrialists. But it also includes a significant concentration of mid-20th-century commercial and residential buildings that formed a context for Kling’s Atlantic station. This context includes studios for local television stations, 1950s shopping centers, moderate scale office buildings, high-rise apartment buildings and other examples of the decentralized, thoroughfare-centered development that blossomed during the post-war era. But architectural resources of this period are only beginning to garner popular and professional interest. In the meantime, these buildings are being demolished or remodeled within an inch of their lives so that they might better compete with new buildings in the search for tenants. Countless 1950s and ’60s buildings, well-designed and constructed with good materials, have been buried beneath ponderous Post Modern facades, usually rendered in cheap, short-lived materials like Dryvit. This tide will likely not be stemmed until the public grows to value these buildings, leading building owners perceive their marketability. For a significant number of buildings of the modern era to survive the vicissitudes of commerce, they must first acquire a level of popular esteem similar to that enjoyed by late-19th-century buildings since the mid-1970s, buildings that in previous years had been widely disdained and seldom the focus of preservation efforts.

But recent buildings must also be adaptable to new uses if a changing world has rendered them obsolete. Gas stations serve as good case studies. They represent the product distribution point for a business that has undergone critical shifts that will likely place at risk both idiosyncratic gas stations like Kling’s, as well as more typical stations found throughout the nation.

Most of these stations were constructed when gasoline sales were coupled with automotive service. The key features of these “service stations” include one or two banks of gasoline pumps, an office space, and two or more service bays. But since the 1970s, the service aspect has largely fallen away. The advent of pump-your-own gas began the trend toward less service. In most states, this system has now reached the pay-at-the-pump stage in which you can buy gas with a credit card inserted at the pump and never deal with a human being at any time during the transaction. The decline of the service function of the station has received a critical boost with the increased computer technology of automobiles that has rendered them mechanically untouchable by anyone not possessing the sophisticated and expensive equipment and expertise found at a dealer’s service department. The simplicity of a 1954 Chevrolet’s upright six cylinder engine has been replaced by the complexity of Cadillac’s Northstar System that boasts no need for a tune-up the first hundred thousand miles. Not only are owners now virtually prohibited from working on their own cars, but journeyman mechanics who were once fixtures of the service station have a vastly diminished role and produce far less revenue for the company than they once did. This revenue loss has more than been compensated by the linking of gasoline sales with quick-stop food purchases, the particular trend that doomed Kling’s very site- and function-specific Atlantic “service” station.

If not demolition, what might the future hold for these recent but redundant buildings? It is quite likely that the best means of preserving mid-20th-century gas stations will involve finding new uses for them outside the automotive products and service realm for which they were created. While Kling’s station was ill-suited to Sunoco’s plans for it, it may well have survived as a video rental store, or a similarly compatible new use for which the building’s distinctive design would have been seen as an asset to be celebrated rather than a deficit to be overcome.

Dennis Montagna is a historian in the Chesapeake and Allegheny System Support Office, NPS, Philadelphia, PA.
The following articles provide a sampling of the programs and documentation projects of the Historic American Buildings Survey and the Historic American Engineering Record of the National Park Service. For more information about HABS/HAER, contact one of the authors or the editor of CRM (see page 2).

Monica P. Murphy

One of a Kind
The Records of HABS/HAER

Among the most atypical preservation records in the world are those created by the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) of the National Park Service (NPS). HABS/HAER is unusual in that it creates two types of records. The primary records are the architectural and engineering documentation of historic structures and sites. Under a long standing agreement with the National Archives and Records Administration (NARA), these records are made available to the public through the Prints and Photographs Division of the Library of Congress. The other important records are the office files and materials that document the activities of the office. These administrative records are unique and various. The NARA created a separate record group for them, Record Group 515, a very unusual procedure for a government organization of less than bureau level.

HABS/HAER is the oldest federally-funded preservation program in the United States. Established in 1933 as a Works Project Administration program under President Franklin Roosevelt, and codified by the Historic Sites Act of 1935, it has continued uninterrupted and remains true to its original mission to document the nation's architectural and engineering heritage. The work is carried out in cooperation with other federal agencies, state and local governments, private preservation and historical organizations, professional societies, and universities. HABS/HAER is internationally recognized for its rigorous recording standards, systematic approach to documenting historic structures and sites, and pioneering the most advanced documentation methodologies.

HABS/HAER produces full-size hand-measured and computer-generated drawings, some combining advanced photogrammetry techniques, large format black-and-white photographs and color transparencies, written historical and descriptive data, and original field notes on the historic structures and sites recorded. The documentation is organized according to established guidelines, is produced using archival materials to ensure maximum life of the documentation, and is deposited in the Prints and Photographs Division in the Madison Building of the Library of Congress. Currently comprised of over 33,000 records, it is in many instances the only information remaining on a structure or site. All HABS/HAER materials are copyright free, reproducible, and readily available to the public.

Every government office has the same types of records—travel authorizations, personnel, correspondence—but some records are more valuable than others. In the HABS/HAER office, these records include correspondence and project files from the 1930s, the original signed 1969 Tripartite Agreement for the establishment of HAER, posters from the 1960s and '70s, original videos, films, photographs, and the HABS/HAER Collections database. Quite an unusual gathering of records, but to the researcher they all tell the story of HABS/HAER—who we are and the product we create.

Paradoxically for a historical organization, these important records were scattered throughout the office in numerous filing cabinets, some unlabeled and forgotten. Some records changed hands as the staff changed over the years, and others were filed in desks and cared for with the knowledge that they were important, but there was no place to put them for safekeeping. Other significant records took up valuable work space in the office. All of the records were valuable for the staff as well as for researchers, preservationists, and enthusiasts, but access to them was difficult. These records reveal HABS/HAER's unique history—how the idea for a national survey came to be, how it was organized, and how it functions within the federal government and with the many partnerships formed over the years with private organizations.

The establishment by the National Archives and Records Administration (NARA) of Record Group 515, Records of HABS/HAER, provided the program the impetus to restructure their records management program. Jerry Wallace, National Archives Liaison, Georgette Wilson, former HABS/HAER Collections Management Administrator, and Robert J. Kapsch, former chief of HABS/HAER, worked together to make sure permanently valuable records were preserved while they were still used and after they were transferred to the National Archives.

Mr. Wallace was responsible for conducting an annual review of the HAER records at the Library of Congress. He immediately recognized the importance and value of the collections as well as the program itself and set out to convince HABS/HAER that the National Archives is not the "black hole" of the government, and that the HABS/HAER administrative records needed to be organized and integrated at the National Archives. It was at this time that the
idea of a separate record group for HABS/HAER was introduced so that the consolidated records wouldn't get lost in the larger NPS Record Group 79.

When a group of NARA staff toured the HABS/HAER office in February 1992, literally dozens of filing drawers full of materials that could immediately be shipped to the National Archives as permanent records, and others which could be stored offsite, were discovered. In March 1992, a formal proposal was sent to the Action Archivist of the United States, Dr. Trudy Huskamp Peterson requesting a separate record group, largely due to the value of the records created and because of HABS/HAER's extensive involvement with private organizations. Dr. Peterson signed the proposal on July 1, 1992, creating Record Group 515, the Records of the Historic American Buildings Survey/Historic American Engineering Record. In a ceremony on October 8, 1992, Charles E. Peterson, founder of HABS, presented to the Archivist of the United States his original 1933 hand-written draft for the establishment of HABS as a WPA program.

After NARA staff reviewed the files in February 1992, HABS/HAER initiated the cataloguing, indexing, and transfer of permanent records to the NARA. Once RG 515 was created, the next step was to conduct an inventory of all the records in the office and to write a records disposition schedule. In preparation for the inventory, a HABS/HAER historian attended two classes taught by the NARA, "Records Disposition" and "Records Scheduling", and obtained a certificate of completion. The classes took one week, were very informative, and gave the participants a strong foundation to implement their records management programs. A wide array of similar programs are scheduled for 1997.

The inventory and eventual schedule were arranged according to the program's organization chart and the types of records each of the units within the office maintained. The inventory included writing a brief description of each type of subject file found, such as Project Leader files, or Peterson Prize files, and determining a disposition for the records — when the files could be closed, when they could be stored offsite, and when they could be transferred to the National Archives or destroyed. Although permanent official records must by law be transferred to NARA when no longer in regular use in a federal office, HABS/HAER still has access to them, and retains legal custody of the records in the Federal Records Center (FRC) until the records are formally transferred to NARA legal custody.

The inventory descriptions were really a draft of the final schedule. HABS/HAER worked closely with Larry Baume, a NARA appraisal archivist, to start the inventory project, determine dispositions, and write the schedule. Mr. Baume was patient with repetitive questions and frequent changes to the records disposition schedule, and was understanding of the needs of the HABS/HAER staff. The final result was a comprehensive yet flexible description of all of HABS/HAER records. The schedule was approved and signed by John Carlin, Archivist of the United States, on August 20, 1996.

Now that a schedule has been approved, staff are more aware of the types of records kept and how they are organized and managed. HABS/HAER has also initiated new records management ideas. For example, a central file area has been established where files that are closed can be stored until they are sent to the FRC. This gives staff more filing space in their offices, keeps records of the same type in the one location grouped by year, and allows access to these files by anyone in the office. Most importantly, these records are preserved for future historians.

NPS programs should contact Warren Dade, NPS Records Officer, 202-523-5043, or the nearest regional FRC for training and other records management assistance. Those responsible for records management should consider taking the classes at the National Archives. They are extremely helpful and informative, and the NARA staff are knowledgeable, professional, and keep you interested. Take advantage of the resources available to you through the National Archives. An accurate schedule will increase effectiveness in records management, help free up additional office space, increase the likelihood that future scholars will write about your program—since the documentation will continue to exist, and encourage orderly files—leading to more effective and efficient records use by the staff. Help is available. All you have to do is call.

Monica Murphy is a HABS/HAER historian. She is responsible for records management in these programs.

Catherine C. Lavoie
Southeastern
Pennsylvania

The Historic American Buildings Survey (HABS), the oldest preservation program of the National Park Service, produces archival documentation in the form of existing-condition measured drawings, large-format photography, and written history. These records support the ongoing preservation, maintenance, interpretation, and understanding of historic structures and sites, as well as their contextual landscapes.

Since 1994, HABS has been producing documentation of historic sites and structures in the five-
county region of Southeastern Pennsylvania. The sites were selected with the intention of bringing needed recognition to, and increase the understanding of, a representative selection of the area’s vast historic resources, with particular regard given to publicly accessible and/or endangered resources, and National Historic Landmarks. As one of America’s oldest and most historically-important cities, Philadelphia is laden with historic resources both unique to and indicative of our national heritage. Last year’s work centered on the historical development of Fairmount Park, which represents one of the earliest efforts in the American park movement. Specifically addressed were the pre-park constructed Villas—ca. 1750-1810 country retreats of Philadelphia’s elite—that are enveloped within the current park. This year’s work consisted of four sites within the city of Philadelphia: Eastern State Penitentiary, Laurel Hill Cemetery, the Philadelphia Zoological Gardens, and the Church of St. James the Less; and a fifth project at Valley Forge National Historical Park: the National Memorial Arch.

Eastern State Penitentiary was designed in 1823 by Philadelphia architect John Haviland at the request of the Philadelphia Society for Alleviating the Miseries of Public Prisons in order to put into practice their enlightened views toward prison reform. Troubled by the 18th century practice of sentencing prisoners to hard labor, this Quaker-based organization proposed as an alternative method of reform a system of solitary confinement which became known as the “Pennsylvania System.” Once behind the 30’ high stone walls, prisoners were never to see or make contact with another human being. Haviland’s radial-plan structure was a manifestation of this proposed reform system. Like the spokes of a wheel, cell blocks radiate from a central rotunda and guard’s tower. Twenty-three hours per day were spent alone in an approximately 12’ x 8’ cell lit by a tiny “dead eye” skylight set at a 45 degree angle, making views of the outside impossible. The twenty-fourth hour was spent in a walled exercise yard to the rear of each cell. Although Eastern State became a international model for penitentiary design and penal reform, the system soon proved problematic. In the subsequent decades numerous changes and additions occurred which compromised the execution of the system as planned, but reflected the evolution of American philosophies of incarceration and rehabilitation.

While much has been written regarding the significance of the original design concept and the context for its development, what was needed was a critical look at what had become of Eastern State since its inception. The modifications that have been made to the structure reveal changes in outlook and subsequent transformations in the treatment of prisoners. One of the key objectives of the HABS report was to document, through written history and large-format photography, significant extant features of the original plan, and of the various changes and additions, to create an essay of the evolution of Eastern State Penitentiary. (Sarah Zurier, historian, and Jack E. Boucher, photographer).

Laurel Hill Cemetery was established in 1836 as the second nonsectarian, rural garden cemetery in America. The plan, developed by Philadelphia architect John Notman, was inspired by earlier European precedents, appearing to have been modeled directly after Kensal Green Cemetery in London (1831). The development of Laurel Hill (and its American precursor, Mt. Auburn in Cambridge, Massachusetts) marked the beginning of a significant departure in traditional burial practices in this country. No longer located within the church yard and arranged along meandering paths, rural garden cemeteries were developed largely in reaction to the problems of sanitation and overcrowding posed by urbanization. At the same time, such sites responded to the growing influence of American horticultural study and English picturesque landscape theory. As some of the first landscaped, publicly-accessible green spaces, early rural cemeteries such as Laurel Hill may have provided the prototype for the development of America’s first public parks. In fact, Laurel Hill did become a frequented tourist attraction prior to the development of Fairmount Park, which later formed the western border of the cemetery.

In addition, many of the monuments, mausoleums and other examples of funerary art found at Laurel Hill are the work of Philadelphia’s best-known architects and sculptors, and reflect well over a century of stylistic development. Laurel Hill also serves as the final resting place for numerous prominent Philadelphians. These issues and others provide the context for Laurel Hill, as discussed in the written HABS history, accompanied by large-format photographs. With diminishing capacity for interments, and without the endowments for perpetual care which have since become standard cemetery practice, Laurel Hill struggles to maintain. While it appears all but forgotten, as a prototype for rural cemetery development Laurel Hill merits a prominent position within the history of American landscape architecture. (Aaron Wunsch, historian, and Jack E. Boucher, photographer).

The Philadelphia Zoological Garden was designed in 1873–74 by Hermann Schwarzmann, the engineer and landscape planner for Fairmount Park. It opened in July of 1874 as one of America’s first zoos; its founding organization, the Zoological Society of Philadelphia, had been incorporated in 1859, making it the oldest zoological society in the country. The current landscape reflects 120 years of innovation and change in the area of zoo develop-
ment, and even more years in the evolution of the cultural landscape. Present within the current zoo grounds are an 18th-century house built by John Penn, grandson of Philadelphia's founder, William Penn; rustic architecture and landscape features of the original design scheme; and animal quarters dating from the 1870s through the 1980s by many of Philadelphia's most renowned architects including Frank Furness, George Hewitt, Paul Cret, and Robert Venturi. Modifications to the original plan, such as the addition of new exhibition buildings and habitats, have been made over the years to meet the changing philosophy of animal care.

The HABS documentation consisted of a history of the development and evolution of the landscape plan for the zoo, accompanied by large-format photographs. In so doing, the report identified existing features of the original landscape and of notable changes and additions to help insure the preservation of significant elements from each developmental phase. The history also provides the larger context with regard to the international history of zoo development: increased animal acquisitions, and changes in ideology regarding the humane treatment of animals, and the use of popular styles of architecture and landscape design. The findings of the HABS history will be used in developing the new master plan for the zoo. (Cynthia Ott, historian, and Jack E. Boucher, photographer).

The Church of St. James the Less, erected between 1846 and 1848 as the first pure example of an Medieval English parish church in America, was a seminal structure in the development of Gothic Revival and ecclesiastic architecture in American. The church was built under the direction of the English Ecclesiological (late Cambridge Camden) Society, which emerged in the 1830s as a reform movement within the Anglican Church calling for a return to traditional medieval forms in both ritual and architectural design. The Society undertook a careful study of extant medieval churches in order to identify the most liturgically and stylistically correct forms which could then be replicated. Among those selected as most true to form was St. Michael's, Longstanton in Cambridgeshire, built ca. 1230. Measured drawings of St. Michael's were executed by English architect G.G. Place, eventually finding their way to Philadelphia where they were used by builder/architect John E. Carver to erect the Church of St. James the Less.

St. James' simple, picturesque plan provided the most suitable prototype yet to appear for the development of emerging suburban and rural church architecture. Exhibitions of its influence began to appear even before St. James the Less could be completed. Prominent American architects Richard Upjohn and Frank Wills were among those who embraced the essential elements of St. James the Less, incorporating them in their own church designs. While St. James the Less provided a model to be emulated, the authenticity of the church's medieval plan and massive stone structural system, and its costly attention to detail insured that it remain a unique structure within the history of American architecture. The documentation consisted of measured drawings of plans, elevations, and sections, along with numerous sheets of architectural details, large-format photography, and a written historical report. (Elizabeth Louden, Architect and Project Supervisor, Mary Ellen Strain, Project Foreman, and architectural technicians Clifford I. Laube and Dan Rene Valenzuela, and Jean Guarino, historian and SAH Fellow).

The National Memorial Arch, design by prominent Philadelphia architect Paul Philippe Cret, was erected in Valley Forge State Park in 1912-16 to commemorate the suffering endured by General George Washington and the Continental Army in the performance of their patriotic duty during the winter encampment of 1777-78. The arch is the largest monument in the park; constructed of Milford pink granite, it measures 61' to the top of the roof and is 49' wide at the base. Unlike the other park monuments which were funded through contributions by states or various associations, the construction of the National Memorial Arch was made possible through a congressional appropriation, and its design was approved by the Commission of Fine Arts. Cret's design was based on the Roman Arch of Titus, though its Beaux Arts interpretation gives it a more contemporary appearance. Also contemporary was the reinforced concrete structural system which used concrete beams spanning the piers of the arch to support the load, rather than the traditional use of a load-bearing arch. Ground was broken for the construction of the arch in May of 1912.

While the architectural design for the arch was well received, less successful was the design for the structural system of the arch, which has been plagued with needed repairs throughout its history. Cracks first began to appear in December of 1921, and by 1923 seepage through the masonry resulted in exposed vertical joints in the cap stones, requiring the first of many repairs. Despite numerous attempts at repointing, such problems continue to threaten the existence of the arch. HABS documentation of the arch was undertaken for the purpose of providing baseline data which will be used in the restoration effort. The drawings were produced through the use of computer-aided drafting with dimensions derived from photogrammetric images. (HABS Architects Robert Arzola, Jonathan Hodge, Frederick Lindstrom, Mark Schara, and Raul Vazquez; and large-format photography was undertaken by Jack E. Boucher).
The Southeastern Pennsylvania projects were undertaken by HABS project leaders Robert Arzola (architect) and Catherine Lavoie (historian), working under the direction of the Chief of HABS Paul Dolinsky. Project selection was coordinated by Historian Bill Bolger of the Chesapeake Systems Support Office (CHESO). The documentation of the Church of St. James the Less was made possible with financial assistance by the William Penn Foundation on behalf of the church. The documentation of the National Memorial Arch was sponsored by the Rite Worshipful Grand Lodge of Free and Accepted Masons of Pennsylvania, Edward O. Weisser, Grand Master.

The Alabama Theater
The Historic American Buildings Survey undertook documentation of the Alabama Theater. Designed by Chicago architects Graven & Mayger, the Alabama was erected in 1927 by Paramount's Publix Theater chain as its flagship for the southeastern region of the United States. The theater is a prime example of the elaborate, even whimsical mix of revival architectural styles which characterize the great movie palaces built during the pre-Depression heyday. In the succeeding decades, theater design would be inspired by the technology that drove the burgeoning film industry, taking the form of the streamlined Art Deco and Moderne styles. The Alabama is a composition of Spanish Renaissance and Baroque architectural styles, but includes decorative elements ranging from Egyptian-patterned doorway surrounds and Japanese dragons, to Celtic Coats of Arms and Colonial Revival elliptical domes. In no other type structure can one expect to find so successfully displayed a total lack of regard for continuity of design! Although the decorative elements reflect styles from past centuries, they are merely a mask for the modern steel structural system which holds it all together. The 3,000 seat theater was built to accommodate both movies—accompanied by the still intact "mighty" Wurlitzer Organ—and live theater on the Broadway circuit.

Because the architect's original plan, sectional and detail drawings still exist, HABS produced axonometric (three-dimensional) drawings which illustrate how the theater works. For as much area as the public spaces command—two lobbies, auditorium, mezzanine, balcony, lounges, and enumerable halls and stairways—even more area is needed for the behind-the-scenes operations. Axonometrics were produced to illustrate such aspects of the theater's operations as the stage and grid system, the duct work for the heating, air conditioning and ventilation systems, and the multi-layered seating arrangements and sightlines. The historical report focuses on the context of the nationwide development of movie palaces, and discusses its design and operations in terms relevant to the philosophy of theater design of that era. Large-format photography will serve as the principle means for documenting the incredible volume of ornamental detail seen throughout the theater. Once the crown jewel of an expansive Birmingham theater district, the Alabama now is the only remaining, active theater. The documentation of theaters such as the Alabama thus becomes even more important when considering the great numbers that have been altered for reuse or lost completely.

The recording team consisted of John P. White, Field Supervisor; Miles B. Battle, Roger Miller, and Jennifer I. Wimmer, architects; Terra Klugh, Historian; and Jack E. Boucher, HABS Photographer.

Catherine C. Lavoie is a HABS historian.

Richard O'Connor

United States Pipe and Foundry Company

As part of its documentation of the Birmingham iron industry, the Historic American Engineering Record prepared drawings, photographs, and a history of the cast iron pipe manufacturing process, focusing on the Bessemer plant of the United States Pipe and Foundry Company. Reflecting concerns sparked by rapid urban development and issues of personal hygiene and disease control, cities in the early-20th century turned to cast iron pipe to provide large quantities of drinking water to their rapidly growing populations. Much of that pipe was supplied by firms in the Birmingham, Alabama industrial area, and the Bessemer plant of the United States Pipe Company was one of the largest.

Founded in 1888 as the Howard-Harrison Iron Company and subsumed by the United States Cast Iron Pipe and Foundry Company in 1899, the Bessemer facility has been the site of two generations of pipe-making technology. Until the 1920s, the plant made pipe by the pit-cast method, in which iron was cast into vertical molds in sand pits in the factory floor. In 1921, United States Pipe purchased exclusive U.S. rights to the deLavaud process, in which cast iron was spun into molds spinning at high velocity. Since that time, deLavaud-process centrifugally-cast pipe has dominated the market, in diameters ranging from 4" to 60".

The Bessemer plant is housed in the original buildings of the Howard-Harrison Iron Company. In addition to the large selection of deLavaud machinery, cupolas, and proprietary mixing, desulfuring
and gray-to-ductile iron conversion processes, the plant exhibits an array of artifacts of the pit-cast process, including anchors in ceiling trusses for the massive jib-crane used to move castings and a "gung-ho" alley for running molten iron to the pits.

The recording team consisted of Robert Dixon, Mark Slater, William Brooks, Eric Elmer, and Aynur Oretmen (US/ICOMOS). Richard O'Connor prepared the history and Jet Lowe prepared large-format photographs.

Richard O'Connor is a HAER historian.

Tim Davis
New Exhibition

Millions of motorists visit the national parks every year, but few pause to consider when, how, or why the roads they travel on were built. The NPS Historic American Engineering Record, the National Building Museum, and the Federal Highway Administration are working together to tell this story in an exhibition titled *Lying Lightly on the Land*, which will take place at the National Building Museum in Washington, DC, from June 1997 to January 1998. This exhibition will trace the development of America's national park roads and parkways from the earliest days of Yellowstone and Yosemite to the present. Using historic photographs and films, vintage vehicles, antique camping and construction equipment, and a wide variety of plans, drawings, and tourist material, this exhibition will show how park roads were designed and constructed, trace their evolution in response to ever-increasing park attendance, and demonstrate how the history of park roads reflects changing cultural concerns, social conditions, and technological possibilities. *Lying Lightly on the Land* is an outgrowth of HAER's on-going efforts to document America's national park roads and parkways, a multi-year project funded by the Federal Lands Highway Program of the Federal Highway Administration, U.S. Department of Transportation. For more information, contact the National Building Museum at 202-272-2448.

Tim Davis is a historian with the Historic American Engineering Record, NPS.

Brian Carey
Color Images at HABS/HAER

There is a new look to the architectural and engineering collections of the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER)—it's color. During the summer of 1995, Collections Management historian Elizabeth Jandoli began the sizable task of assessing and preparing for transmittal to the Library of Congress the approximate 2,000 color transparencies stored in HABS/HAER's Washington office.

Color transparencies may be best understood as large slides (standard HABS/HAER format sizes being 4x5 inches and 5x7 inches). Color transparencies are positive images, not negatives, and are processed on Ektachrome large format color film.

Early in the 1970s, HABS and HAER photographers began shooting color transparencies in instances where color photography would enhance the recorded knowledge of historic structures and sites. As the number of transparencies grew, so did the demand for their access and use. Concern for their archival stability led HABS/HAER and Library of Congress staff to develop means by which these color images could be incorporated into the formal HABS/HAER Collections which, until then, had wholly consisted of measured drawings, black-and-white photographs, and written histories.

At the time of this printing, progress has been steady with more than 1,100 color transparencies transmitted, processed, and made available to the general public and researchers at the Library of Congress, Prints and Photographs Division. Most importantly, these images will certainly enjoy extended life being housed in the most advanced archival storage facilities as well as infinitely greater public circulation being serviced by the Library's professional staff. As a direct result, a large number of current HABS/HAER recording projects have a color component. This number will only increase in the future.

For information on the availability of color transparencies for a specific structure or site, contact the Prints and Photographs Division, 202-707-6394. To learn more about this project, contact Monica Murphy, HABS/HAER historian, 202-343-9598.

Brian L. Cary is a HABS/HAER architect.
Adapting Digital Technology Used in Ship Design to Cultural Resources

Advanced computer modeling and simulation programs have been successfully used in many industries to realistically evaluate and enhance performance of a design prior to construction. Now we can look forward toward 3-D digital technology for complex subject documentation and to record what was not previously recordable graphically to HABS/HAER standards. This has been accomplished through the transfer of existing defense design technology to CRM purposes through 3-D CAD-based analysis using precise sequential engineering data, rather than creating the visual depictions traditionally used. The virtual environments created by such advanced technology permit the documentation of dynamic behavior of ships and structures according to the laws of physics supported by engineering and structural data. Unlike present efforts using static isometric cutaway drawings and sections, computer dynamic visualization and simulation can add a major new dimension to documentation—the documentation of motion, which National Preservation Institute is now exploring for CRM uses.

One of the most intriguing and complex uses of these tools has been for the design of U. S. Navy ships, in which the design process has moved from the drawing board to the computer. This makes use of such relevant digital technologies as computer-aided design, engineering, and rendering; high-performance visualization; simulation-based design; and virtual prototyping. The development of a ship's hull form is now assisted by software programs producing the ship's lines in three dimensions, based on its mission profile, which defines the size, speed, and operation characteristics. After the hull lines are developed, the internal and topside plans are developed. These plans, or layouts, use the 3-D model of the hull lines, thus determining the location and configuration of the various spaces and functions in the ship design. Simulations allow virtual prototyping of system operations, such as the flow of personnel, materials, and ordnance. Complex dynamic-motion operations, such as roll-on/roll-off capability of various vehicles, deployment of equipment such as ramps, launching of small boats and cargo container handling by shipboard cranes, anchor handling; and other mechanically-aided operations are conducted using this simulation technology. Before the use of digital simulation technology, design decisions based on dynamic motion could not be made in lieu of the actual construction of the real hardware or a scale-model mockup. In a computer-generated virtual environment, often referred to as virtual reality, “virtual” ships can be placed into a “virtual” sea and maneuvers and operations conducted in various sea states and environmental conditions selected at will, with behavior and interaction of the simulated components modeled strictly in accordance with the laws of physics and the principles of hydrodynamics.

Advanced Marine Enterprises (AME) has pioneered the use of computer modeling and simulation to build and operate ships and ship systems in virtual environments. Just as ships not yet built can be designed and
accurately modeled, and their operations realistically simulated, so can historic ships and other historic properties long since gone be reconstructed, analyzed, and studied in a virtual ocean or other environment. For the National Preservation Institute, AME is currently participating in a research grant from the National Center for Preservation Technology and Training (NCPTT) to demonstrate the application of advanced modeling, simulation, and visualization technology for enhanced cultural resources documentation, with emphasis on maritime and historic properties with dynamic motion. The subject selected for this demonstration is the famed Civil War ironclad USS Monitor of 1862. This study has focused on the dynamic motion of the complex turret rotation system and its associated machinery. Also addressed is the dynamic motion of the ship in a seaway.

In a separate study for the National Maritime Initiative of the NPS History Program, ship stability software is being used to study the sinking behavior of the USS Tecumseh in Mobile Bay in 1864. This software is in use on U.S. Navy and Coast Guard ships for stability and damage control purposes. This, also, is an example of the adaptation of defense technology to CRM purposes.

The new digital documentation can, for example, show aspects of dynamic behavior in real time or slow motion or at selected rates of movement, revolution, and environmental or other external forces. It can also support analyses of the behavior of structures such as cranes, tall buildings, wind tunnels, machinery, and material processes, for example, using accurate physical data rather than generalized pictorial graphics.

Can this new approach to documentation meet the Secretary of the Interior's standards for documentation? Would new sections of the standards be appropriate to guide the characteristics of such documentation, i.e., standards for a documentation level involving movement accompanied by physical data? How would records fit into the Library of Congress tradition of easy public access and reproducibility? Would CD-ROM discs be the answer? These could document the characteristics of motion at selected points or aspects of motion, for example, every 15 degrees of a 360-degree revolution of a turning object, including structural and engineering data for each selected point. Selected steps in a material-handling or industrial process could also be detailed by selected phases and time, as well as movement.

Will these new levels of documentation be useful to the CRM community to better understand the effect of motion of objects? Or, is the static summary of an isometric cutaway or section sufficient? Is CD-ROM the best media for presenting such documentation to the public, or should some other digital format be sought? Experiences that the CRM community has had in these new directions should be shared. NPI believes that the new digital technology will provide significant enhancement to cultural resources documentation and education with continuing advances in computer technology.

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One of the most challenging experiences of my 23-year career as a historian with the National Park Service has been my involvement in State of New Jersey v. State of New York, No. 120 Original, a well-publicized case presently before the U.S. Supreme Court involving a boundary dispute and jurisdiction over the filled portion of Ellis Island. Located off the New Jersey shore, Ellis Island, a 27.5-acre expanse in New York Harbor, is administered, along with nearby Liberty Island, by the National Park Service as part of Statue of Liberty National Monument, one of our nation's most cherished and heavily-visited historic shrines. I am the first historian in the 80-year history of the National Park Service to be involved in a case before the court. My involvement in the case is an illustration of how public history research can serve legal interests and demonstrates that public history is gaining increasing recognition in the highest echelons of our nation's institutions.

On May 16, 1994, the U.S. Supreme Court agreed to hear a lawsuit filed by the State of New Jersey against the State of New York, under its Constitutionally-granted power of "original jurisdiction," meaning the case did not need to arise from a lower court. At issue in the lawsuit was a disagreement over the location of a common boundary between the two states on Ellis Island. Several months later, on October 16, the court appointed Paul R. Verkuil as "special master" to administer the case, take evidence, and preside at the trial.

Although this case involves a variety of issues regarding sovereignty and jurisdiction dating back to colonial times, the arguments of the two states come down largely to competing interpretations of an 1834 compact signed by both after an even-then long-standing dispute over state lands and water boundaries in New York Harbor. New Jersey agrees that New York retains authority over the land that was Ellis Island in 1834. Although the extent of that land remains in dispute between the two states, New Jersey contends that the 1834 island was approximately three acres in size. New Jersey also contends that the compact granted it jurisdiction over the waters surrounding the island. In 1890, the federal government assumed control of the island for the purpose of constructing what would become the nation's largest and most significant immigration station and began artificially filling submerged underwater lands around the island to provide additional space for the station's structural development. Expansion of the island by artificial filling continued until the mid-1930s to accommodate expansion of the station through which more than 16,000,000 persons entered the United States between 1892 and 1954. Since the fill, much of which came from New York subway excavations, was placed on the submerged underwater lands around the island, New Jersey contends that the filled portion of the island lies within its jurisdiction.

On the other hand, New York claims that the entire 27.5-acre island has long been part of the Empire State. It contends that ever since Henry Hudson sailed into New York Harbor in 1609 to claim the land for Great Britain, a seamless web of political, economic, legal, commercial, and social relationships has weaved Ellis Island into the jurisdictional fabric of New York. While the 1834 compact established a boundary line between the states, New York contends that its control of Ellis Island was not limited to a fixed geographic dimension, arguing that the state retained sovereignty and jurisdiction over the entire Ellis Island, including any extensions that might be added by fill.

More than anything else, it appears that New Jersey is vying for the prestige associated with the nationally-significant historic site. A relatively small amount of state sales and income tax revenues is generated on the island, although the future could bring greater development and more tax opportunities. In urging the Supreme Court to hear its claim that New York is usurping the Garden State's rightful authority, New Jersey, which has long existed in the shadows of its northern neighbor, cited potential commercial and historic preservation projects that could yield revenues to the state with jurisdiction over the island.

During the late spring of 1994, both New Jersey and New York began extensive research efforts to provide documentation for their respec-
tive positions in the case. Depositions were conducted during the autumn and winter of 1995-96, and legal briefs were submitted to the court in March-April 1996. Because of the complexity of the dispute and the amount of evidence to be collected from both sides, Verkuil sought to hold the trial in the Supreme Court building rather than piecemeal in the states.

The trial, which was the first such legal proceeding to be conducted in the U.S. Supreme Court building in Washington, DC, since it was completed in 1935, was held in the West Conference Room from July 10 to August 15, 1996. The conference room is an elegant chamber just off the Great Hall that is paneled in American quartered white oak, in Georgian Revival style. Bordered by one of the building's two interior courtyards, the room features two crystal chandeliers from Czechoslovakia, a ceiling glazed in two tones of gold, and Corinthian pilasters with hand-carved capitals. Portraits of the last seven chief justices adorn the walls, lending a sense of historical dignity to the ornately-furnished chamber.

My connections to Ellis Island include both familial and professional ties. In June 1909, my maternal grandmother, then 16 years of age, along with her entire family, left their home in the rural village of Toksaba in the Crimea Peninsula of southern Russia, and emigrated to the United States, entering their adopted homeland through the U.S. Immigration Station on Ellis Island. My ancestors had emigrated from West Prussia to the Ukraine in 1804, when Catherine the Great, the Russian czarina, was offering inducements to attract German farmers to settle and develop the agricultural resources of the Ukraine. Ultimately, the family had moved to the Crimea to become relatively prosperous farmers in a tightly-knit German Mennonite community. With the onset of Czar Nicholas II's Russification program and political and economic turmoil looming on the horizon, the family determined to emigrate to America to start a new life. The family took a lengthy trip by train to the port of Omsk on the Baltic Sea, from where they traveled by boat to Liverpool, England. I well remember conversations with my grandmother years ago during which she recounted her impressions and observations upon entering New York Harbor after the seven-day sea voyage from Liverpool aboard the Choronia, passing the Statue of Liberty, and viewing the Manhattan skyline as she was taken to Ellis Island for processing. Some of the awe, amazement, and excitement that she experienced during her passage up the harbor was tempered by the fear and uncertainty that accompanied the medical and legal inspection process that awaited her on the island. Like many other immigrants, she, as well as other members of her family, had money sewn into the seams of her clothes for protection. Further distress was experienced when her father was apparently cheated while exchanging his Russian rubles for American dollars at the immigration station's money exchange before the family entrained for its new life on a farm in central Kansas.

Because of these experiences in my family's background, I eagerly accepted assignment of two National Park Service historical studies regarding the U.S. Immigration Station that operated on Ellis Island. In 1978, I began research on a study, entitled Historic Structure Report, Ellis Island, Historical Data, Statue of Liberty National Monument (printed May 1981). This report was the first study to focus solely on the historical evolution of the 33 extant U.S. Immigration Station structures on the island. Hence, the primary objectives of the study were to (1) provide basic historical documentation for the restoration/preservation of the buildings, and (2) provide preliminary data necessary for management to make informed decisions concerning historical significance, interpretation, and preservation treatment of the structures.

In 1981, I began research for what would become a three-volume study, entitled Historic Resource Study (Historical Component), Ellis Island, Statue of Liberty National Monument (printed September 1984). This study was prepared to provide historical data for an expanded information base for the preservation/stabilization and interpretation of Ellis Island. Its purpose was to provide a series of short monograph-type studies presenting research data on topics determined by National Park Service personnel to require further documentation.

Since their preparation, both studies have been used for the rehabilitation and restoration of Ellis Island's structures and development of its interpretive program. In addition to their use by the National Park Service, the studies have been used by academic historians, historic preservationists, and a variety of public and private institutions, national media organizations, ethnic and historical societies, and individuals conducting historical studies or projects relating to the island's history.

The first time that my Ellis Island research brought me into the legal arena occurred in September 1990 when I was subpoenaed by the U.S. District Attorney for the Southern District
of New York to testify as an expert witness in Terry Collins v. Promark Products, Inc., v. United States of America. In that case, the question before the Second Circuit Court of Appeals concerned whether the tort laws of New Jersey or New York applied to a controversy arising from an on-the-job accident suffered by a laborer (Collins) that occurred on the filled portion of Ellis Island while he was grouting tree roots with a mechanical device manufactured by Promark Products. Both New York and New Jersey appeared as amici curiae, asserting their jurisdictional and territorial rights over the filled portion of the island. I was subpoenaed because the Promark Products attorney apparently determined that my testimony might be relevant because of the widespread use that my two Ellis Island studies had received since their publication. In its decision, the Collins court held that the law of New York regarding workers’ compensation would apply to the litigation. Although my involvement in that case was limited to preparation of a declaration and appearance for deposition by the Promark Products attorney in the offices of Collins' attorney in New York City, it set the stage for my participation in New Jersey v. New York.

After the Supreme Court agreed to hear the New Jersey v. New York case in 1994, a deputy attorney general and paralegal from the state attorney general’s office in Trenton, New Jersey, met with me in June at the Denver Service Center, where I have been employed for more than 18 years. They questioned me concerning the nature and extent of my Ellis Island research, repositories where I conducted my research, and location of documentary materials that might be useful for the preparation of their case. Prior to my discussion with the representatives from New Jersey, they had obtained copies of my two studies from the Denver Service Center. I informed them that my studies did not address the legal issues that were central to the case before the Supreme Court and that I had no legal education or experience and thus would not provide legal opinions or conclusions. Nevertheless, I did provide perspectives and observations regarding my research methodology and findings and made recommendations to guide their research for the preparation of New York’s case. She indicated that she had found my studies to be informative regarding many areas that could be vital to New York’s defense, particularly in relation to sources revealing the federal government’s own references to the island as a part of the City of New York. During the course of our conversation, she asked if I believed that my studies provided foundation for New York’s contention in the case. I indicated that I believed my studies provided such foundation, although I reiterated that they did not address the legal issues of the case before the court and that I would not provide legal opinions or conclusions. Kramer indicated her desire to have my two studies introduced as “expert knowledge” documents at the trial to provide foundation for New York’s case; and she stated that her inquiry would be restricted to the scope of my experience as an investigator and as author of the two studies. Thus, I agreed to testify as an expert witness for the State of New York concerning the research methodology used to prepare the two studies and historical conclusions that could be drawn from my research findings.

As the case unfolded, I was requested to prepare a statement and supplemental, summarizing my research methodology and findings and denoting historical conclusions that could be drawn from the two Ellis Island studies. During pre-deposition legal proceedings before the special master, New Jersey demanded that New York turn over xerox copies of all documents cited in the footnotes and bibliographies of both my studies, as well as all documents that I might have perused during the course of my research during the late 1970s and early 1980s. Since this demand could not be met, New Jersey moved that my testimony and two studies be excluded from the case. In response to this legal maneuvering, the special master issued an order of the court directing me to supply a representative sampling of documents cited in my studies that remained in the custody of the National Park Service. Additionally, the order directed me to appear in New York City for deposition by New Jersey on December 19, 1995, the day after federal budget negotiations between Congress and the White House broke down for the second time that autumn, resulting in closure of many parts of the federal government, including the National Park Service. As a result of the Supreme Court order, I was declared to be a federal "emergency" employee, and I was deposed by New Jersey Assistant Attorney General Joseph L. Yannotti, director of
his state's team of attorneys working on the case, in the offices of the New York State Attorney General in New York City. Because of a snowstorm, my deposition was cut short on the 19th, and it was not completed until January 23, 1996.

During July and August 1996, I provided approximately three full days of testimony, including direct, cross, and redirect examination, spread over four days in the trial at the Supreme Court. The range of questions addressed to me during the trial included my research methodology, factual analysis, conclusions, and interpretation based on my research, National Park Service planning, historic preservation, administrative policies, and the mechanics and rationale involved in preparing National Register of Historic Places nomination forms. Interestingly, my testimony and two studies were accepted by the special master as admissible evidence and expert knowledge during the trial despite another motion filed by the State of New Jersey during the trial to have them barred from the case. In part, the special master ruled that my testimony and two studies were admissible, because my research has received widespread recognition and use in the historical community and was conducted without regard for the issues or parties involved in the present litigation.

With the conclusion of the trial on August 15, the special master will prepare a report with recommendations that will be submitted to the justices of the Supreme Court. Both states will be afforded the opportunity to lodge appeals or exceptions to the report. The justices themselves will hold oral arguments, likely in 1997, and thereafter render a decision in the case.

Although the legal proceedings in New Jersey v. New York continue, I have found my participation in the case to date to be memorable. Participation in a case before the Supreme Court, and particularly my appearance as an expert witness at the trial in the building's impressively-furnished West Conference Room, constitute one of the most unforgettable experiences of my career as a historian with the National Park Service. Testifying in the formal setting of that elegant chamber in the building that houses our nation's highest tribunal is an awe-inspiring event. It is pertinent to note that my testimony and two historical studies were recognized by the special master as having intrinsic and documentary value in support of New York's contention in the case despite vigorous challenges by the State of New Jersey. Admission of my testimony as an expert witness and of my two studies as expert knowledge documents illustrates one of the more unusual uses of public history by demonstrating how it can serve legal interests. Moreover, it demonstrates that the public historian's products have an importance beyond their immediate database function and may represent, in part, the factual dialogue upon which major legal decisions and matters of public policy are determined at the highest levels of our federal government.

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Features Wanted for ParkNet

The National Park Service is currently welcoming feature presentations for ParkNet, the National Park Service place on the Web. Feature presentations are prominently displayed on one of the five primary departments of ParkNet. All ideas for feature presentations should meet at least one of the following criteria:

- appealing to a wide audience; informative and educational
- a geographically-or thematically-broad theme which ties many national park units together
- a special event
- current and timely

Abstracts for feature presentations should include: subject, target audience, supporting materials (i.e. graphics, video, sound), and target date for availability. A storyboard or outline of theme topics will be helpful.

Please send abstracts via email or fax to Paul Handly, Web Project Coordinator.
cc:Mail: Paul Handly
Internet email: <Paul_Handly@nps.gov>
Fax: 202-523-0162
Once Native Americans were confined to reservations in the 1880s, the federal government embarked on a plan to bring about the disappearance of North American Indians, not by military means, but by Americanizing their children in the hope disappearance would occur through assimilation. Indian people experienced a variety of problems that set them apart which the government tried to solve. Most Indians of that period could not communicate in English, could neither live a traditional life (rely to some degree on hunted and gathered foods), nor productively work in the off-reservation economy, suffered from disease and health problems through ignorance of proper sanitation and health care, and did not desire to become patriotic American citizens. The education of Native American children “promised” to correct these problems. Off-reservation boarding schools were the primary instrument of the federal government’s education of Indian children, and to a large extent they assisted in bringing Native American tribes into the 20th century by providing the means for them to interact with and become a part of the larger American culture. The clash of Native and Anglo-American cultures intensified in the school setting and had profound effects on the identities of Indian children. Some of those effects are still felt today.

The Phoenix Indian School was one of over a hundred boarding schools established at the turn of the century. One early-20th-century pupil described how the school experience contributed to her own personal growth and recognized how her time at school fundamentally changed her concept of the world: the courses of study at the school were not designed to make whites of Indians, as is sometimes charged, but to give young Indian students a basic education in the three R's, to acquaint them with the rudiments of many different trades, and to introduce them to the world off the Indian reservation. The real value of such an education contributes to the general growth of the student, and it is always gratifying that an appreciable number of these Indians can and do discover who they are as individuals and thus learn what they would like to contribute to the world (Ann Phelps Kopta, cited in Shaw 1974:xiii-xiv).

Formal recognition of the school’s mission to change the identity of Indian children is permanently inscribed on the monument in front of Memorial Hall to classmates who died in World War I. The inscription also indicates the pupils had a separate identity that should be recognized by the dominant culture.

The Indian will become an asset or a liability as we cultivate or fail to cultivate his body, mind, and soul with a view to fitting him for an honorable place in our social and economic structure. The purpose of this school is to introduce Indian youth to the opportunities and responsibilities of civilization and to acquaint his Caucasian brother with the sterling qualities of the Native
Americanization widened the gap between immigrant parents and their children. Boarding school children found that their return to the reservation was made difficult because new knowledge made them critical or intolerant of traditional practices.

Artifacts and Changing Identity
The Phoenix Indian School Archeological Project was one of the outcomes of an act of Congress, Public Law 100-696, signed by President Ronald Reagan in November 1988, that closed the school and sought to divide the ownership of the property as part of a land exchange. The Bureau of Indian Affairs had operated the school, but when it closed, the administration of the property passed to the National Park Service, Department of the Interior.

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The Department of the Interior plans to transfer ownership of a portion of property to Barron-Collier Companies, a private land developer in Florida, and in return it will receive 115,000 acres of land owned by Barron-Collier to add to Everglades National Park, Florida. Barron-Collier will also establish a $35 million trust fund for the education of Indian children in Arizona. The remaining portion of the Phoenix Indian School property will be divided among the city of Phoenix for an urban park, the Arizona State Veterans Home, and the Veterans Administration for expansion of its hospital facilities adjacent to the school property.

Recent excavation of the Phoenix Indian School trash dump by Arizona State University's Department of Anthropology uncovered items that date between the school's opening in 1892 and about 1924. Archeological items from the dump provide distinctive evidence of subtle and lasting
changes in Indian children's identity that resulted from American assimilation.

Historic artifacts from the school's dump indicate the outcome of Indian assimilation was not conformity but a variation of the melting pot. The assimilative goal was to thrust the Indian and non-Indian together in a context devoid of "Indian" culture, values, and identity to remake the individual into a "non-Indian". The outcome was educated Indian children who incorporated parts of a school-learned American identity with the identity they brought with them. The government Indian boarding school provided the first place where many Indian people learned of the existence of other Indian tribes and their separate, "special" treatment by the government. More than any other institution, these schools, actively or passively, created the environment that cultivated and strengthened the idea of an "Indian" identity apart from one's individual tribe.

All of the outward signs of their home background were stripped away by school policies of forbidding Indian speech, religion, and clothing. Their "home identity," tied to traditional Indian ways of living, radically contrasted their "school identity," which was the planned outcome of federal Indian education policy to provide the rudiments of an academic education (read, write, speak English), to develop individual identity apart from tribe, clan, or family, to Christianize, and to teach citizenship. The clearest archeological evidence of identity change was tied to education in sanitation and health care.

The many artifacts that marked outward changes in the pupils so that they appeared to be assimilated were the result of improvement of personal hygiene and health. Clothing was preserved as military buttons from uniforms and glass buttons from dresses.

Traditional clothing was confiscated upon pupils' arrival and substituted with clothing that reflected military discipline and conformity. School clothing represents the introduction of an intensity and style of discipline not known at home. Military discipline, including marching in uniform with rifles, was used to control the large numbers of children at the school as well as to teach pupils responsibility, leadership, cleanliness, and self esteem. Regular laundering of clothing by students at school contrasted the lower hygiene associated with traditional clothing. Both girls and boys were taught to make clothing of the dominant culture that had the effect of providing a useful skill and perpetuating the outward conformity to the dominant culture when children returned to the reservation. Helen Sekapueptewa's recollection (Udall 1969:144) of her return from the Phoenix Indian School exemplifies this type of change in identity when she refused to abide her family's wishes to remove the school clothes she wore and wear Hopi attire.

Broken dishes were abundant in the trash dump and were objects that fundamentally changed how pupils viewed the organization of traditional family meals. The use of dishes and eating utensils at school instilled in the student lessons of social order, courtesy, and health awareness ritually three times a day. One of the most unusual experiences confronting the pupils was that of the dining hall. Not only was the kind of food served in the dining hall different from home, but the manner in which it was served (on dishes), the way it was expected to be consumed (with utensils shared among a table with permanently assigned seating), its quantity, and its regularity in appearance starkly contrasted with reservation meals. The large quantity and regularity of meals was primarily intended to keep pupils healthy, especially in a context where deadly diseases (pneumonia, measles, tuberculosis) existed with a degree of frequency. The context of serving and consuming food, however, had as lasting an impact on pupils as the kinds and quantities of food they ate. On the reservation, food often was consumed in a family setting, sitting around a hearth sharing from a communal vessel. Eating was probably done with the hands. This image contrasts with the image of row after row of dining
Close-up of flake scars from a bifacially flaked dessert plate, from the Phoenix Indian School dump.

Tables set with plates and utensils, each pupil in his or her assigned place. While the manner of eating off plates with forks and knives was intended to be taught as the “civilized” way to eat, it also was a more sanitary way to eat, inhibiting the transmission of disease. Each pupil literally had his or her own place and utensils, which, after use, were thoroughly cleaned by other students. Cleanliness and sanitation were lessons, taught to pupils by dining hall matrons, that became associated with dishes. Once pupils became accustomed to eating food and the sanitary customs of the dining hall, it was difficult or impossible for many to return home and eat food in a communal manner.

A steam whistle found in the dump was an object that regulated the behavior and made pupils conform to the school identity the government intended them to acquire. The freedom of unregulated time on the reservation contrasted with the order imposed by whistle blasts. At school, not only was free time virtually nonexistent, but the day was divided into activities whose occurrence was regulated by blasts of the steam whistle. Responding to the whistle blasts introduced the student to the need to be on time and the demands of the clock to keep to a schedule.

The discovery of combs and toothbrushes marked with students’ names illustrates one of the subtle changes of identity. A school policy was to develop an identity in pupils that they could be self-reliant individuals; this distinctly contrasted the Native importance attached to kinship and community obligations learned at home. Education in dental hygiene and the dangers of transmitting germs encouraged pupils to clearly mark their own toothbrushes. Toothbrushes recovered from the dump were either marked in ink with names very apparent or names were engraved or scratched that were barely visible. Barely visible markings are a subtle reflection of the acquisition of the lesson of individual ownership while more apparent marks were intended to signal ownership in a public context. Both kinds of markings attest to the varying application of the notion of individuality.

Few artifacts marked the persistence of pupils to retain the identity they brought with them from home. Practicing aboriginal religion, defining oneself in traditional ways, and practicing traditional technology (stone working) were aspects of the “home identity” expressed by students at school. The practice of aboriginal religion was forbidden. Religious objects such as effigies or fetishes had to be brought from home and hidden because if discovered by school employees, the objects would have been confiscated and discarded. While historic records make no mention of the practice of native religion on campus, the archeological recovery of miniature clay representations of animals (a bird, a four-legged animal) and a small smoothed non-local pebble that could have been a fetish indicate some pupils might have continued their Native practices in secret.

Defining oneself in traditional ways may be another expression of home identity. Southwestern pottery marks tribal affiliation by distinctions in color and form. Since pottery making was not one of the industrial arts initially taught at the school, we were surprised to discover sherds of historic Indian pottery. Pupils probably brought sherds with them from home. Distinct colors and patterns on the sherds would have reminded the child of home. Another possible indication of defining oneself in traditional ways was reflected in a few of the markings on personal items. Rather than using the “American” name to mark their comb or toothbrush, some pupils choose to mark items with dates or a simple line. In marking items this way, pupils may have intended to guard their name, because the traditional view among many southwestern cultures of one’s name is that it is personal and secret and not to be told. One who knows your name is said to have power over you.

The final way some pupils expressed their home identity was by practicing traditional stone working technology. Vocational classes comprised half the curriculum and shops existed that were stocked with modern tools and mechanical equipment. Practicing traditional technology could have been
a response to the domination of modern technology in shop classes. The presence of traditional Native American woodworking tools in the trash were fashioned by students for their own use. Obtaining suitable stone raw material probably was difficult (only one crude stone projectile point was found) but items in the school's trash provided easily obtainable materials that could be flaked or worked in the same manner as stone. Fashioning tools of their own making, such as window glass scrapers and retouched bottle neck spokeshaves, made a connection to home. The most unusual connection to home is indicated by several bifacially flaked dinner plates that were not used as tools, but simply reflect the practice of traditional tool making technology.

Americanization

The Americanization of Indians was intended to lead to their greater self-sufficiency and gradual absorption into American society. Education brought awareness of American cultural diversity and the historic role of government in attempting to solve Indian problems. A positive outcome of Indian education is that Native Americans could now be able to solve their problems themselves.

The need to get along with Indians from different tribes as well as non-Indians, the knowledge of their special treatment by the federal government, and the alienation some felt when they returned home, led the pupils to create a new "Indian" identity that was the product of the assimilation of ideas from Indians and non-Indians. Historian Hazel Hertzberg (1971) argues that the roots of modern pan-Indianism are found in the forces that were created and grew in the last two decades of the 19th century and the first decade of the 20th century. The major theme of modern pan-Indian movements "was accommodation to and acceptance of white society as permanent, rather than emphasis upon a vain hope of a return to aboriginal conditions through whatever means" (Hertzberg 1971:14). Among the leaders of this movement (the American Indian Association, the first group to limit its membership to Native Americans, began in 1911) were students who had returned from non-reservation boarding schools who served as interpreters and conveyers of the movements' ideas. Hertzberg (1971:15) identified educational opportunity as the single most important element in stimulating Pan-Indianism.

Through education, a large and diverse group of Indians arose who shared a common language—English—and common experience in the Indian and white worlds (expanded further by later employment in the Federal Indian Service). Boarding schools taught ideas and exposed pupils to experiences that forced pupils to redefine themselves as Indians and to work out their relationship with whites.

While the boarding schools exposed the pupil to the clash of culture that is part of the modern world, they did not provide proper preparation to the pupil to identify his or her self as both a tribal member and an American citizen.

Americanization also led to the development of new problems for Native Americans students: prejudice, racism, discrimination, and loss of self esteem because of their ignorance of Indian history and culture. The importance of preparation for the inevitable clash of Native and dominant cultures is now realized. Even before boarding schools began to be phased out, reservation schools were being opened so children need not be separated from their parents. The education missing from the boarding school in Native language, lifestyle, history, and culture is now imparted in reservation schools as well as by parents. Because the schools are located close to the home, parents can assume their important role as teachers and reinforce elements of Native culture that are critical ingredients for building and keeping self esteem. Today, Indian children can rely on both their parents and reservation-based schools to educate them in both Native and American values and traditions and to provide guidance so that they can make their own decisions in making a life in the modern world.

References


Dr. Owen Lindauer conducted this project as a research faculty member of the Department of Anthropology at Arizona State University. He is now a historic preservation specialist in the Environmental Planning Section, Arizona Department of Transportation (email: <olindauer@dot.state.az.us>).

Photos by the author.
—continued from page 4

monitoring sites, working on survey crews, commenting on proposals, working in labs, museums, and repositories. Not only do they contribute directly to the protection of cultural resources, their involvement provides opportunities for others to gain a deeper, shared understanding of what the landscapes, places, and sites of their ancestors mean. When it comes time to celebrate the 50th anniversary of the NHPA, we hope that Native Americans will be more prominently recognized for their participation in the protection of this country's priceless heritage.

—Darby Stapp
Cultural Resources Coordinator
CH2M Hill Hanford, Inc.
Richland, WA

—Kathy Kiefer
Grant County P.U.D., WA

Dear Editor:

Thank you for including a review of Paul Hedren's "Traveler's Guide to the Great Sioux War: The Battlefields, Forts and Related Sites of America's Greatest Indian Wars" in CRM Vol. 19 No. 7. I was pleased that your reviewer, Lawrence Van Horn, thought so highly of the book. There was one error in his review, however, which I feel needs correcting. The price of the paperback edition is $10.95, not $37.50 as stated in the review.

Readers who would like to purchase copies of "Traveler's Guide" should be able to find it in their local bookstores. Books are also available directly from the Montana Historical Society by calling 1-800-243-9900.

—Martha Kohl, Editor
Montana Historical Society Press

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**PRESERVATION RESOURCES**

**Inventory Pilot Study**

The Frank Lloyd Wright Building Conservancy received a $30,000 grant from the National Park Service's National Center for Preservation Technology and Training last October to begin a survey of Wright structures nationwide. Dr. David DeLong, Chairman of the Graduate Program in Historic Preservation at the University of Pennsylvania, and Professor Frank G. Matero, who team-teaches a graduate seminar on Frank Lloyd Wright with DeLong, oversees the pilot study. In May, students of the Wright seminar chose 25 structures representing the full range of Wright's practice to visit on site, speak with the owner, research available archival materials, and document preservation and maintenance projects on the house. Historical information on the original and subsequent owners, as well as the house and its construction, was also recorded. Students made a cursory condition/needs report for each house over the years.

Information gathered by the students of the seminar has been entered into a database specifically designed for the inventorying of the Wright properties. It is now available to homeowners and building administrators. Also, the Conservancy is using it to "red line" certain maintenance and restoration problems faced by many owners. It will then conduct research to establish appropriate procedures, document the procedures, and then distribute the information free to Wright building owners. The Conservancy will use the information gathered to further its mission to facilitate the preservation of the remaining structures designed by Frank Lloyd Wright.

For further information, contact Sara-Ann B. Briggs, Executive Director, The Frank Lloyd Wright Building Conservancy, 343 S. Dearborn Street, Suite 1701, Chicago, IL 60604-3815; 312-663-1786; fax: 312-663-1683; email: <bdgcons@aol.com>, or visit its website at <http://www.swcp.com/FLW>.

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**Publications**

**NPS/FHWA Project**

The National Park Service is working in partnership with the Federal Highway Administration (FHWA) to develop two publications that will assist programs in both agencies.

**Intrinsic Qualities Handbook** will explain how to assess scenic byway corridors according to the six intrinsic qualities described in the scenic byway program legislation. It is being coordinated by Evelyn Swimmer, landscape architect in the Rivers, Trails, and Conservation Assistance Program (RTCA) in Philadelphia. Completion date for the handbook is scheduled for December 1996.

**Corridor Management Plan Case Studies** will highlight outstanding corridor management plans which exemplify good ways to address the 14 factors required by FHWA. The first case study was compiled this summer, with completion of the last case study and project close-out in mid-1997.
Special APT Bulletin

The uneasy marriage of historic buildings and the artifacts that they house is the subject of a new special issue of the APT Bulletin, Museums in Historic Buildings. Guest editor Dr. Thomas H. Taylor, Jr., Colonial Williamsburg's architectural collections manager and architectural conservator, has gathered together a group of leading theorists and practitioners to share their scholarship on a subject that has for years generated intense controversy. For further information, contact APT, P.O. Box 3511, Williamsburg, Virginia 23187; 540-373-1621.

Reviews


Reviewed by Pratt Cassity, Director, Office of Preservation Services, University of Georgia School of Environmental Design.

Clay has been the urban affairs editor of the Louisville Courier-Journal, president of the American Society of Planning Officials and the National Association of Real Estate Editors and editor of Landscape Architecture magazine. His program, "Crossing the American Grain," is broadcast weekly on public radio.

One of Grady Clay's newest contributions to the cataloguing of American places, Real Places: An Unconventional Guide to America's Generic Landscape, is an interesting and educational tramp across the highways and backroads of where we have been and where we are going. This book builds upon his previous work, Close-Up: How to Read the American City. All urban observers, fans of city-building, and students of historic preservation, planning or real estate should be familiar with Clay. He has commented on the changing American city for years. In his new book he takes the reader through the jumbled and massive curiosity shop of our nation's places. He gives us titles and pigeon-holes for all those familiar, but previously un-named, unique areas we encounter. His style is witty, offbeat and often brash. His work is enjoyable and makes us think about what we see everyday. The book is one to pick up and put down several times a week; it is not to be read in one sitting, although it never grows tiresome.

Clay's book begins the sorting-out process of everyday places and how we use them. It enlivens them with names and descriptions—the first step in their perpetuation. It is a preservation manual in many respects. It is a sourcebook for community nomenclature, a sort of urban taxonomy. How can we accurately preserve America's heritage without a naming system? Grady Clay has begun that process for us. His goal is to make us look at the city in ways we have never seen it before. His unique insight and clever delivery accomplishes that with great ease.

He divides our environment into more than 125 different identities ranging from The Courthouse Square to The Whale Watching Site. His illustrations and photographs vividly depict the places he describes. His southern roots show strongly in his choice of locations, although all regions are well represented in his examples.

Clay has been the urban affairs editor of the Louisville Courier-Journal, president of the American Society of Planning Officials and the National Association of Real Estate Editors and editor of Landscape Architecture magazine. His program, "Crossing the American Grain," is broadcast weekly on public radio.

Real Places is a gift for the preservationist. It is a way those of us who deal with the good, the bad, and the ugly parts of our towns and neighborhoods can bring order and significance to where we live—and that will make those places better in the long run.

BULLETIN BOARD

New River Symposium

The New River Gorge National River, a unit of the national park system, and the West Virginia Division of Culture and History, are again cosponsoring the New River Symposium, scheduled for April 11-12, 1997, in Daniels, West Virginia. Proposals for special sessions, papers, and media presentations are welcome and are being requested in natural and/or cultural history, folklore, archeology, geography, other natural, physical, and social sciences, and the humanities. Papers must be received by December 1, 1996. All proposals should be sent to the Chief of Interpretation, National Park Service, New River Gorge National River, P.O. Box 246, Glen Jean, WV 25846; 304-465-6509.

The Council on America's Military Past (CAMP) will hold its 31st annual military history conference in the Buffalo, NY area May 7-11, 1997. The conference will emphasize the War of 1812 on the Great Lakes and the military in the Old Northwest Territories, but it will also include all aspects of American and Canadian military history from the 17th century to the Cold War. Dr. William Dudley, Director of Naval History and Curator of the Department of the Navy, will be the opening speaker. Pre-registration information requests and offers of papers should be addressed to CAMP '97 Conference, P.O. Box 1151, Fort Myer, VA 22211-1151; 703-912-6124, Fax: 703-912-5666. Deadline for paper offers is December 1, 1996.

"Interpreting Edison"

In recognition of the 150th anniversary of Thomas A. Edison's birth, the National Park Service, Edison National Historic Site, the Organization of American Histori-
Dr. E.A. Connally Honored by the International Preservation Community

Dr. Ernest A. Connally has received the Gazzola Prize from the International Council on Monuments and Sites (ICOMOS). The Prize is given every three years by ICOMOS at its triennial general assembly. Established in 1980 in memory of Piero Gazzola (1908-1979), the first president of ICOMOS, the Prize is recognized as the highest honor bestowed at the international level for outstanding achievement in the conservation of historic monuments, groups of buildings, and sites.

An eminent professor of architectural history, Dr. Connally was the first NPS Associate Director for Cultural Resources, as well as the second Secretary-General of ICOMOS. He retired from the Service in 1992, and is now completing a manuscript for a book on the origins of the Convention concerning the Protection of World Cultural and Natural Heritage ("World Heritage Convention").

The Gazzola Prize has been awarded to: Jean Trouvelot (France) 1981; Stanislaw Lorentz (Poland) 1984; Masaru Sekino (Japan) 1987; Gertrude Tripp (Austria) 1990; Sir Bernard Feilden (United Kingdom) 1993; and Ernest Allen Connally (USA) 1996.

For more information on Dr. Connally's numerous achievements, see CRM, Vol. 14, No. 7 (1991), pp.8-9.


This conference, which will be held at Rutgers University in Newark and at the Edison Site in West Orange, NJ, will convene educators, museum curators, interpreters, scholars from a variety of disciplines, and the public for a critical examination of Edison's impact on innovation, manufacturing, business, and popular culture.

The conference will also explore Edison's role as inventor, entrepreneur, and cultural figure; the role of Edison's laboratories in Newark, Menlo Park, West Orange, and Fort Myers in the development of technology and science; and the role of the National Park Service and other agencies in preserving and interpreting the Edison story. Conference organizers invite the submission of proposals for papers or panels on any of these or related historical and cultural themes.

The Edison conference offers museum interpreters, scholars, and classroom educators an opportunity to discuss more generally the history of science and technology, and its interpretation in museums, historic sites, and school curricula. To achieve this objective, conference planners also invite proposals for workshops or seminars designed to help educators use cultural resources to teach the history of science and technology. These workshops do not necessarily have to relate to Edison.

For more information, contact Leonard DeGraaf, Edison National Historic Site, West Orange, NJ 07052.

The National Council on Public History will conduct its annual meeting May 1-4, 1997, in Albany, NY. The conference theme is "Public History and Public Memory." For more information, contact the program committee chairperson John R. Jameson, Department of History, Kent State University, Kent, OH 44242-0001; 330-672-2492.

The American Institute for Conservation of Historic and Artistic Works (AIC) will hold its 25th annual meeting in San Diego, California, June 9-15, 1997. The theme is "Compensation for Loss" with speakers addressing some of the most basic questions regarding the understanding of an object's historic and artistic attributes. The conference will be preceded by a workshop, Museum Exhibit Lighting, June 9-10. For more information on AIC or the annual meeting, contact AIC, 1717 K Street, NW, Suite 301, Washington, DC 20006; 202-452-9545; Fax: 202-452-9328.

The 62nd annual meeting of the Southern Historical Association will be held November 5-8, 1997, in Atlanta, GA. For further information, contact Program Committee Chair Lacy K. Ford, Jr., Department of History, University of South Carolina, Columbia, SC 29208; 803-777-7774; fax: 803-777-4494.

Indiana's Interpretation Workshop, "Tools of the Trade," will bring noted historians and interpreters together March 3-5, 1997, at Spring Mill State Park in Mitchell, IN, to study methods and philosophies toward improving interpretation skills and successes at historic and natural sites.

This annual workshop is co-sponsored by Historic Southern Indiana, a program of the University of Southern Indiana, and the Indiana State Museums. For more information, call 800-489-4474.

The Oral History Association (OHA) invites proposals for papers and presentations for its annual meeting to be held September 25-28, 1997, in New Orleans, Louisiana. The theme of the meeting is "Looking In, Looking Out: Retelling the Past, Envisioning the Future." Deadline for proposals is December 10, 1996. OHA policy prevents those who will present papers at the 1996 annual meeting from doing so in 1997. For further information and to submit proposals, contact either Alphine W. Jefferson, Department of History, College of
American Association for State and Local History Invites Nominations for 1997 Awards Program

The American Association for State and Local History (AASLH) invites nominations for its 52nd Annual Awards Program, the most prestigious North American recognition for achievement in the preservation and interpretation of local, state, provincial, and regional history.

The awards program was initiated in 1945 to establish and encourage standards of excellence within the public history field. Nominations are encouraged for unusually meritorious work with special consideration given to new and promising ideas, approaches and innovations. AASLH confers awards on a variety of projects ranging from education programs and exhibits to publication and videos. Individuals making outstanding contributions to the field of state and local history are also eligible for AASLH awards. Examples of awards made in 1996 include exhibitions, public programs, books, interactive websites, collaborative initiatives, and lifelong community service.

Deadline for nominations is March 1, 1997. All nominations must be submitted with proper documentation to the appropriate state or provincial chair. Nomination forms are available by contacting AASLH at 530 Church Street, Suite 600, Nashville, TN 37219, 615-255-2971.

1997 International Summer Intern Program in Historic Preservation

US/ICOMOS (the United States Committee, International Council on Monuments and Sites) is seeking US-citizen graduate students or young professionals for paid internships in Australia, France, Great Britain, Lithuania, Poland, the Slovak Republic, Turkey, Ghana, and other countries in summer 1997. Participants work for public and private non-profit historic preservation organizations and agencies, under the direction of professionals, for a period of three months. Internships in the past have required training in architecture, architectural history, landscape architecture, materials conservation, history, archeology, interpretation, museum studies, and cultural tourism.

In some countries with convertible currency, interns will be paid a stipend equivalent to $4,000 for the 12-week working internship. In other cases, the stipend is based on local wages. Exchanges offer partial or full travel grants. Applicants must be graduate students or young professionals with a minimum of a bachelors degree, 22 to 35 years old. Applicants should be able to demonstrate their qualifications in preservation through a combination of academic and work experience; the program is intended for those with a career commitment in the field. Attendance at the orientation and final debriefing programs is obligatory.

Applications are due no later than March 1, 1997. For further information and to receive application forms, contact: Ellen Delage, Program Director, US/ICOMOS, 401 F Street NW, Room 331, Washington, DC 20001-2728, tel: 202-842-1862, fax: 202-842-1861.

Information Desk

The Heritage Preservation Services (HPS) Program of the NPS has created an information desk to handle all general publication and program information requests from the public. Available from the HPS Information desk are products and services catalogs, flyers, and brochures detailing the specific programs. Contact Larry Hunter at 202-343-9583; email: <HPS-info@nps.gov>.

Education Initiative

Marie Tyler-McGraw has joined the National Register, History, and Education Program of the National Park Service to help formulate, review, and encourage the education initiatives of the Service.

An undergraduate secondary education major at West Virginia University, she moved to American History for an M.A. and to American Studies for a Ph.D. at The George Washington University. Tyler-McGraw taught for eight years in two historically-black colleges, one multi-campus community college, and two universities. After a year in England, she was awarded a post-doctoral fellowship at the National Museum of American History of the Smithsonian Institution and went from there to the Valentine Museum in Richmond, Virginia, where she was co-curator of two exhibitions, "From Bondage to Freedom: Antebellum Black Life in Richmond" and "I Believe: Southern Urban Evangelicalism" and worked with curators on seven other exhibitions. She also wrote At The Falls, a history of Richmond, published by the University of North Carolina Press in 1994. Tyler-McGraw has worked in the Higher Education in the Humanities program of the National Endowment for the Humanities’ Division of Education and has lived in Paris for two semesters between 1991 and 1995.

Tyler-McGraw looks forward to encouraging interaction between academic historians and Service personnel and to making connections between disciplines as frequently as possible. Working on courses and curriculum for the historical programs of the Service will be an important part of her work.

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American Express Presents 1996 Historic Preservation Awards

American Express has announced the winners of its 1996 Historic Preservation Awards. These awards, first presented by American Express in conjunction with the Caribbean Tourism Organization (CTO) in 1990, were created to recognize excellence in the protection and enhancement of the Caribbean's cultural and architectural heritage.

The United States Committee, International Council on Monuments and Sites (US/ICOMOS) administers the American Express Preservation Awards Program. An international jury comprised of three preservation experts and representatives from both the CTO and US/ICOMOS selected the winning projects from a total of 19 entries spanning 12 Caribbean nations.

All winning projects received a silver medal and bronze plaque for display at the site. In addition, the Project Under Development received a $10,000 cash grant from American Express.

The 1996 winners in the category of Completed Project are:

Heywoods Archaeological Recovery Program, St. Peters, Barbados
Casa Ramon Power, Old San Juan, Puerto Rico
Soufriere Estate Factory, Soufriere, St. Lucia

The 1996 winner in the category of Project Under Development and recipient of the $10,000 grant is:

Grants Program for Falmouth Historic District, Falmouth, Jamaica

NPF Honors Nine Parks as Classrooms Projects

The National Park Foundation has recognized nine innovative education projects in National Parks for their success in enriching learning for teachers and thousands of students by giving them hands-on experience with the rich natural, cultural and historical resources of the parks. For three years, the nine projects have served as national models for the Parks as Classrooms® (PaC) program administered by the National Park Service in partnership with the National Park Foundation. Launched in 1992 with a $1 million grant from the Pew Charitable Trusts, subsequent support from the National Park Service, the National Park Foundation (NPF), and Ambassador L.W. "Bill" Lane and Jean Lane funded the nine Parks as Classrooms grantees beginning in 1993.

Following are the nine model projects:

**Parks as Classrooms:**
- Acadia National Park (ME)
- New England and the Formation of the Nation: Exploring the Historical Environment: Boston NHP, Salem Maritime NHS, and Adams NHS.
- PARTNERS—Potomac Area Rural Teachers using National Educational Resources fro Students: Harpers Ferry NHP (WV), Antietam NB (MD), C&O Canal NHP (MD), Monocacy NB (MD).
- Parks as Classrooms: Petroglyph NM (NM).
- Heart of the Rockies Adventure Program: Rocky Mountain NP (CO).
- Children Are the Future of the Everglades: Everglades NP (FL).
- Atlanta Metro Parks: Kennesaw Mountain NBP and Martin Luther King, Jr. NHS (GA).
- Parks as Laboratories: Santa Monica Mountains NRA (CA).

Each model program developed tangible educational materials—curriculum guides, activity books, lesson plans, or videos—to complement the hands-on activities at the parks and teacher training workshops provided to enhance the learning experience. Other parks will be able to use the material and methodology from the models to help shape their own programs.

In addition to the nine three-year grants, the National Park Foundation also supports education programs through its one year competitive grants program. Forty-five percent of the more than $2.6 million awarded by the NPF in fiscal year 1995 supported education in the parks. The National Park Service has committed over $3 million since 1990 through its Parks as Classrooms grant program.

Scholarship in Residence Program, 1997–98

The Pennsylvania Historical and Museum Commission invites applications for its 1997–98 Scholars in Residence Program. The program provides support for full-time research and study at any of the facilities maintained by the Commission. Its purpose is fourfold:

- to promote the interpretation of Pennsylvania history;
- to encourage research that draws upon the Commission's architectural, archival, and artifact collections;
- to promote the dissemination of research findings to both the professional community of scholars and the public; and,
- to develop collegial relationships between scholars and Commission staff.

Eligibility applies to all who are currently engaged in or who are planning a research project on Pennsylvania history, including but not limited to academic scholars, public sector professional in history-related disciplines, independent scholars, graduate students, writers, filmmakers, and others. Residencies are awarded on a competitive basis. Applications will be evaluated by committee.

Applications are due by January 17, 1997. For application material, write: Scholars in Residence Program Division of History Pennsylvania Historical and Museum Commission P.O. Box 1026 Harrisburg, PA 17108 717-787-3034
FDR: Liberal or Conservative?
A Symposium

The designation of October 1996 as Roosevelt History Month provided the American people with an opportunity to remember the life, history, and impact of one of the most important men to have occupied the office of President of the United States—Franklin Delano Roosevelt. Roosevelt History Month events spanned the entire nation and involved schools, public and private institutions, scholars, and the general public.

In commemoration of Roosevelt History Month, the National Park Service and the National Archives and Records Administration jointly sponsored a symposium on Franklin D. Roosevelt held October 24 in the auditorium of the Dutchess County Community College near Hyde Park, New York, the home of FDR. The symposium examined FDR’s life and presidency, his philosophies, and political style in keeping with the theme of the meeting: FDR—Liberal or Conservative?

Curtis Roosevelt, FDR’s grandson, offered a unique personal examination of life at Springwood, the Roosevelt family home on the bluffs of the Hudson River. The symposium continued with a presentation by Dr. William Barber, a Rhodes Scholar, and past director of the FDR Presidential Library where he served from 1974 through 1991. Dr. Barber addressed FDR’s presidential years and compared his policies to the liberal or conservative issues at the time. Dr. William Barber, also a Rhodes Scholar, discussed FDR’s economic policies. Dr. Barber, a long-time professor at Wesleyan University, has just published Designs Within Disorder: Franklin D. Roosevelt, The Economics, and the Shaping of American Economic Policy, 1933–1945, Cambridge University Press, 1996. The symposium included a panel of Yale University history professors who addressed specific policies of FDR’s administration. Dr. Glenda Gilmore discussed racial issues. Dr. Cynthia Russell spoke on the topic of the Women of the New Deal, and Dr. Stephen A. Lassonde addressed other New Deal issues, particularly those involving education.

The symposium closed with Dr. Robin Winks who spoke on the subject of FDR’s contribution to the national park ethic. Dr. Winks, a long-time conservationist, friend, and consultant to the National Park Service and twice chairman of the National Park System Advisory Board, is presently the Randolph W. Townsend Professor of History at Yale University where he is also the Chair of the Program in Environmental Studies.

The participants attending the Symposium were able to visit the Hyde Park Home of FDR and Val-Kill, the Home of Eleanor Roosevelt.

The moderator of the symposium was Hyde Park Superintendent Skip Cole. Papers presented at the symposium will be published in future issues of CRM.

—Harry A. Butowsky
Historian, NPS

Call for Articles
A special issue of CRM, “Women’s Heritage/American Heritage,” will be published in March 1997. It will focus on the current state of understanding of women’s experiences in America’s past, especially on the relationship to tangible resources, historic sites, districts, structures, and objects. Articles showing the breadth and variety of women’s experiences are especially welcome. Proposals for articles are due by November 29; articles (approximately 1,500 words, but ranging shorter or longer) are due by December 13. Please send proposals to Heather Huyck; email address is <heather_huyck@nps.gov> (or cc:Mai by name).
Scientists Discover “Lost” Cornerstone of America

Archeologists announced the discovery of the remains of the original 1607 fort at Jamestown Island, Virginia. The event is particularly dramatic because of the site's singular importance in American history and because it was long thought to have been washed away by the James River.

The stain markings of palisade walls and the angle at which the walls are joined, a curved bastion, and thousands of artifacts are the evidence that archeologists have found James Fort. Among the artifacts are swords, armor, jewelry, ceramics, and coins. The discovery comes after a two-year search by the Association for the Preservation of Virginia Antiquities (APVA), which has owned the site since 1893.

The now-picturesque site was anything but hospitable in 1607. Of the 104 people who came ashore, only 38 survived the first eight months. The rest succumbed to disease, starvation, the elements, and hostilities. The walls of the fort were the original “city limits” of Jamestown which consisted of houses, a church, storehouses, and craftsmen's shops.

Governor George Allen, noting that Jamestown was the site of the first elected assembly in North America, called it “the source spring of American democracy.” He declared, “The Virginia Company which started at Jamestown was the first commercial venture in the English New World. Thus, from the APVA we are all reminded that on this unequaled hallowed ground the foundation of free people and free enterprise was begun.”

Dr. William Kelso, the APVA's Director of Archeology, underscored Jamestown's importance, calling it the “cornerstone of America. From this tiny, isolated island evolved our political institutions, our language, our commerce, and much of our culture. No other American site pre-dates Jamestown in national historical significance.”

George E. Stuart, chairman of the National Geographic Society's Committee for Research and Exploration, which helped support the excavation, said, “In terms of difficulty, peril, and sheer impact, the settlement at Jamestown was the moon landing of its time. And the newly discovered fort was the beginning of it all, where Jamestown's pioneers first built something they could call home.”

The excavation project—Jamestown Rediscovery—is expected to continue until the 400th anniversary of Jamestown in 2007. The APVA has begun to raise the estimated $16 million needed for archeology, facilities, education, and endowment.

For further information contact Timothy S. Kolly, 804-740-8233, or 804-648-1889.

This article was edited by Janice C. McCoy from an APVA news release.

Cover caption: Toothrock Half Viaduct, the Columbia River Highway at Mt. Woua, OR, c. 1915. Designed by Samuel C. Lancaster and constructed at the dawn of the automobile age from 1913 to 1922, the scenic Columbia River Highway was an unprecedented engineering feat that opened up the Gorge for tourism and recreation, and spurred both public and private recreational and commercial activities along its route. Photo from the files of the National Register of Historic Places.