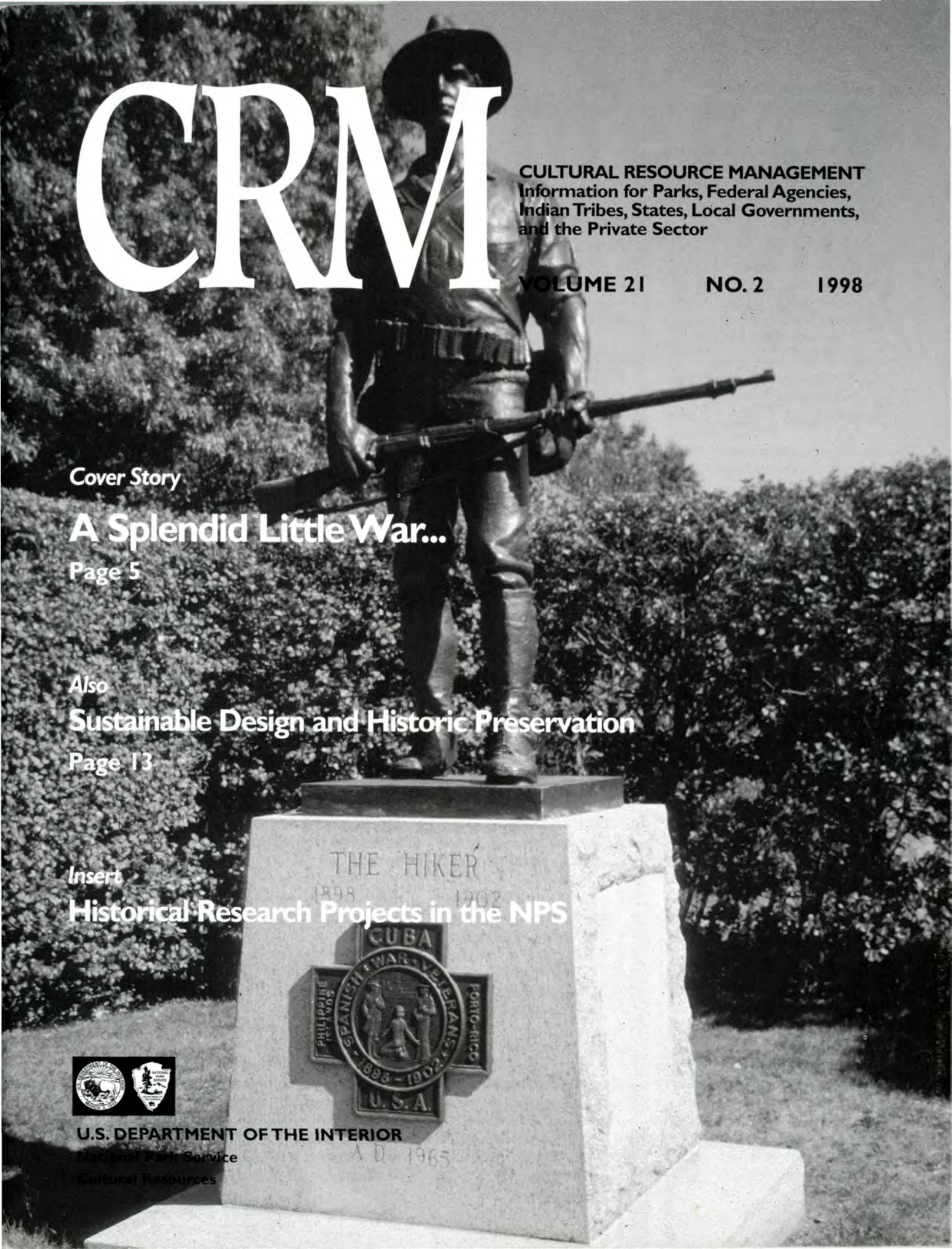
CRM

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

VOLUME 21 NO. 2 1998



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Historical Research Projects in the NPS

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

PUBLISHED BY THE NATIONAL PARK SERVICE

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

DIRECTOR
Robert Stanton

ASSOCIATE DIRECTOR
CULTURAL RESOURCE STEWARDSHIP AND PARTNERSHIPS
Katherine H. Stevenson

EDITOR
Ronald M. Greenberg

ADVISORS
David Andrews
Editor, NPS
Joan Bacharach
Museum Registrar, NPS
Randall J. Biallas
Historical Architect, NPS
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Pratt Cassity
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State Historic Preservation Officer, Georgia
Roger E. Kelly
Archeologist, NPS
Antoinette J. Lee
Historian, NPS

ASSISTANT
Denise M. Mayo

CONSULTANTS
Wm. H. Freeman
Design, Imaging, Production–Freeman Publishing Services
Janice C. McCoy
Editing–Editorial Notes

An electronic version of this issue of *CRM* can be accessed through the *CRM* homepage at <http://www.cr.nps.gov/crm>.

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ISSN 1068-4999

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POINT OF VIEW

Letters

Dear Editor

Congratulations on the production of a long-awaited issue dedicated to those of us resident behind the "cactus curtain" (*CRM*, Vol. 20, No. 11, 1997). I was really pleased with the issue overall, but profoundly dismayed to see that you did not include cultural resource management activities in the State of California in this issue devoted to Hispanic heritage. Perhaps this oversight was a result of a lack of information about Hispanic heritage preservation in the far western part of the southwest.

I do not speak with authority about all such efforts in the state, but can list some activities in which I have personally participated and those of some of my colleagues:

- The California Department of Parks and Recreation sponsored a Hispanic Heritage Inventory of historical sites within the state parks system which possess Hispanic historical associations, even though some of them are state beaches or campgrounds like the Portola camp sites along Highway One. It is on the World Wide Web as part of the agency. The concept was to increase awareness of such historical connections and prompt increased interpretation at the sites.
- The California Department of Parks and Recreation is involved in a project known as El Camino Real Misionero with the Mexican authorities in Baja California to cooperatively encourage tourism, and improve interpretation and preservation of historic resources of the Hispanic period along the El Camino Real in the Californias.
- The California Mission Studies Association held its annual conference in Loreto, Baja California, to celebrate the 300th anniversary of the missions of the Californias....
- The Santa Barbara Trust for Historic Preservation continues its reconstruction efforts on the Presidio of Santa Barbara with near completion of the *commandancia* and the *torreon*. The Trust recently purchased the Rochin Adobe and is conducting test excavations in the yard. The Trust also purchased the grist and fulling mills complex of Mission Santa Ines in Buellton which they plan to conserve, interpret, and open to the public. The Trust is completing restoration of the Casa de la Guerra in downtown Santa Barbara. The Trust is in contact with the International Earthen Architecture Committee of ICOMOS and is contemplating sponsorship of a Conference on the Conservation of Earthen Architecture, tentatively called Tierra 2000.
- The California Mission Studies Association's initiative to encourage National Historic Landmark status for the missions which warrant it is bearing fruit: Missions Santa Ines and San Juan Capistrano have completed National Landmark applications....
- The Historic Preservation Commission of the City of Monterey received a grant from the NPS National Center for Preservation Technology and Training (NCPTT) to investigate conservation methodologies appropriate for the carved stone facade of the Royal Presidio Chapel NHL completed in 1794. The Diocese of Monterey received a grant from the Getty Trust to fund an ongoing Historic Structure Report for it, the only remaining building of the Presidio of Monterey founded in 1770.
- The California Department of Parks and Recreation is about to begin construction of the landscaping, parking lot, and restroom facilities to complete restoration of the 1824 Indian neophyte quarters of Mission Santa Cruz (Santa Cruz Mission State Historic Park), the only remaining mission Indian residence quarters in the state.
- Cabrillo College finished a second summer field school at the Presidio of San Francisco directed by NPS archeologist Leo Barker. Students in the Cabrillo Archaeological Technology Program excavated portions of the Presidio Chapel adjacent to the commandancia, which is the only remaining building of the Spanish Presidio of San Francisco.
- Jack Williams continues to excavate the site of the Presidio of San Diego owned by the City of San Diego below the Serra Museum....
- NPS-funded earthquake repairs and retrofitting are scheduled to begin at Rancho Camulos: the Home of Ramona, in Ventura, California. Rancho Camulos was the home of Ignacio and Reginaldo del Valle, prominent Mexican Californians who served in the California state legislature. Helen Hunt Jackson visited the site in 1882 and used it as the venue for her novel *Ramona* about the plight of the former

mission Indians of the state. Federal CDBG funds were used to fund design and planning efforts by the County in conjunction with Rancho Camulos Museum.

- Innovative seismic retrofitting techniques that were developed since 1990 by the Getty Conservation Institute's Seismic Adobe Project (GSAP) are being utilized at Rancho Camulos. A final report on the project's findings will soon be available from GCI as well as Guidelines for Planning and Techniques for Designing Seismic Retrofits for Historic Adobe Buildings are being developed. A Survey of Damage to Historic Adobe Buildings after the January 1994 Northridge Earthquake is available from the Getty Conservation Institute.
- Ideas for Mission Indian memorials at the California missions continue to be promulgated by historian-activist Edward Castillo and plans for them are proceeding at some mission sites including Mission Dolores in San Francisco. At Mission Santa Cruz, plans have been made for the campo santo or cemetery (which is currently a parking lot), to be re-enclosed by a reconstructed adobe wall, planted appropriately, and a suitable marker erected.

As California changes demographically and a Hispanic majority is in sight, it is easy to foresee a time when the state's Hispanic cultural heritage preservation will not be overlooked without comment. Californians have an obligation to increase the awareness of the citizens of the state and of the nation of its deep rooted and intertwined Native American and Hispanic cultural legacy. I understand and regret that California's Hispanic cultural heritage is represented only by the Martinez Adobe and the Presidio of San Francisco in the national park system.... Perhaps this is why *CRM* overlooked the state. However, if *CRM* is interested in obtaining the names of contacts regarding the above listed activities, please feel free to contact me.

—Edna E. Kimbro,
Architectural conservator and historian

PRESERVATION RESOURCES

Reviews

A New Deal for Southeastern Archaeology by Edwin A. Lyon, The University of Alabama Press, Tuscaloosa, 1996.

Reviewed by David G. Anderson, Southeast Archeological Center, National Park Service.

Every archeologist trained in the Southeast during the past half century has heard stories of the vast field projects undertaken during the New Deal. Massive crews consisting of from dozens to hundreds of people were put to work, in some cases excavating and then analyzing the contents of whole mounds, villages, or shell middens. This work was completed under the direction of the few trained archeologists available at the time, and the crop of harried professionals that arose and met the challenge of the era—many of them brash youngsters, self-proclaimed young Turks fresh out of school—went on to dominate American archeology in the half century that followed.

A great many truly remarkable archeologists worked in the southeast during the New Deal, whose names are legendary in American archeology. Until quite recently, many of these figures could be seen occupying principal roles at national archeological meetings, and particularly at the annual meetings of the Southeastern Archaeological Conference, which, like the Society for American Archaeology, was created during the New Deal era, in part to handle communications about the new discoveries that were occurring on an almost daily basis. Their number has been dwindling each year, however, and all but a few are now gone. Stories about New Deal era excavations are entering the realm of myth and folklore, its practitioners viewed as giants who once walked among us, but who are now all but gone. Future generations will thus no longer have the opportunity to learn from them first hand what life was like during this era.

It is thus not surprising, and indeed quite appropriate, that this book has appeared. New Deal archeology revolutionized our understanding of southeastern archeology, in ways that people now entering or interested in the field could have little hope of grasping without such a synthesis. A major contribution of this volume is that it provides, under one cover, a detailed accounting of what was accomplished, and as importantly, how this work was done. Projects are described as are the people who ran them, as well as some of the trials and tribulations they went through. Superbly documented, the arguments in the text are supported by hundreds of footnotes referencing primary historical documents, many of them letters written back and forth between the principals in this drama. The volume is, accordingly, an absolutely superb piece of historical research. It also offers enjoyable reading. The notes themselves are mercifully placed at the back of the book, so the text can be read and enjoyed as a narrative, without the constant interruption dropping to the bottom of the page to look at the notes can entail. I read the book twice, first checking the footnotes and then straight through ignoring them, and the second reading was far more absorbing; I'd recommend all but the most scholarly of bent to approach the book in the latter fashion.

Sections of the book encompass: (1) Southeastern Archeology before the Depression; (2) The Origin of New Deal Archeology;

—continued page 28

Features

Ronald W. Johnson and Mary E. Franza

A Splendid Little War

Does Anyone Remember in 1998?

Tombstone at the national cemetery in Sitka, Alaska.

"Remember the Maine"—dastardly attack
"A Splendid Little War"—easy and cheap victory
"You May Fire When Ready Gridley"—heroic leadership

These jingoistic slogans captured America's public consciousness in the spring and summer of 1898, and galvanized public opinion for a quick war against a decaying colonial empire that soon brought the United States onto the world scene as an imperial power. This little-remembered "lightning war"—a precursor to more deadly international adventures and conflicts in the 20th century—is but a faded memory. This year is the centenary of a land and naval conflict marked by armed invasion of Cuba and Puerto Rico, two major naval battles, and a three-year counter-insurgency in the Philippines. This article will examine how the nation has interpreted the Spanish-American War with its monumental cultural resources. How this conflict has been memorialized can help illustrate how Americans of an earlier time felt about the war and how they wanted their descendants to remember those who fought as well as providing patriotic lessons.

Monument in the Village Common, Concord, Massachusetts.

History

In the 1890s, Americans were upset with Spain's repressive tactics in Cuba. A long-running and often bloody rebellion against the waning Spanish empire resulted in Spain's military intervention and establishment of brutal concentration camps to imprison the determined rebels. The United States sent the battleship *Maine* to Havana in late January 1898, ostensibly as a "friendly" visit but actually as a show of force by the world's fifth largest naval power. On February 18, a mysterious explosion sank *Maine* at its berth, killing 260 American sailors. There was an immediate and loud outcry for retaliation. President William McKinley asked Spain for an armistice in Cuba to be followed by a more substantive peace. By April 9, Spain agreed in principle, but two days later McKinley requested that Congress send troops to Cuba. What started as a war to free Cuba from Spain quickly evolved into acquisition of an overseas empire.

Congress declared war on April 19. The Navy deployed in the Atlantic and Pacific, and two engagements put the Spanish fleet out of commission. Under Secretary of the Navy Theodore Roosevelt ordered Admiral George Dewey to move the Asiatic Squadron from Hong Kong to Manila in late April. Dewey scored a stunning victory over the outgunned Spanish on May 1. On July 3 the Atlantic Squadron, under the leadership of Admiral William T. Sampson and Commodore W.S. Schley, destroyed Admiral Pascual Cervera's fleet at Santiago, Cuba.

Since the Regular Army had only 25,000 trained troops, Congress requested an immediate increase to 62,000 with a call for 125,000 volunteers. Volunteers and National Guard units trained near Chattanooga. The regulars gathered at Tampa which became the embarkation point for Cuba. General Nelson A. Miles, a Civil War and Indian Wars veteran, assumed command. Contingents finally embarked for Cuba in June. Arms, ammunition, food, clothing and medical supplies were scarce. General William R. Shafter landed approximately 18,000 troops at Santiago in late June.

The U.S. Army defeated Spanish forces at several small battles in early July. These actions included El Caney and San Juan Hill—the site of Teddy Roosevelt's exploits with the Rough Riders. American forces occupied Puerto Rico without incurring major opposition. Spain signed a preliminary peace treaty on August 12 in which it surrendered Cuba, Guam, agreed to the American

occupation of Manila, and ceded Puerto Rico. Spain signed the Treaty of Paris on December 8, agreeing to assume Cuba's debt and ceding the Philippines to the U.S. After rancorous debate, Congress approved the treaty on February 6, 1899. The U.S. now had an overseas empire. Cuba became an independent entity under American hegemony while the Philippines became embroiled in a bloody three-year insurrection.

In this four-month war 460 soldiers and sailors were killed; another 5,200 fell to malaria, dysentery, and typhoid. The longer, more bloody war to suppress native freedom fighters in the Philippines between 1899-1901 consumed $170 million and 4,300 American lives.

How America Remembers the War

Since the major theater of activity occurred overseas, the principal physical remains of the war are cemeteries and memorials managed by various civic entities. There are scant physical remnants of the training facilities or the embarkation points in the U.S., other than limited interpretive signs. The National Park Service offers limited interpretation of the war at Sagamore Hill National Historic Site, Golden Gate National Recreation Area, and San Juan National Historic Site. Other than reading the historians' view of the war, Americans of 1998 can learn more by personally observing the meaning of that era's memorialization of the Spanish-American War. The management of these cultural resources by a host of civic and governmental entities has been exemplary.

Memorialization of the Spanish-American War combined traditional construction and materials with factual information as well as symbolic patriotic messages. The graves of those killed in action and the veterans are scattered throughout the U.S. from Arlington National Cemetery to the national cemetery in Sitka, Alaska, and provide the most fundamental examples of postwar memorialization. The marble tombstones bearing the name, life dates, unit, and state provide the most fundamental memorial to those who served and fought. Typical 19th-century cemetery and funereal monuments such as rough boulders or dressed stone are another form of commemoration. Soldier statues are a relatively common Spanish-American War memorial. Other memorials feature a soldier or a sailor figure with a warship—symbols that project America's recent arrival as a naval power on the international scene in the 1890s. Unlike the brutal internal Civil War and its more local military unit or specific battle action memorials, many Spanish-American War monuments illustrate America's presence on the world stage. Some memorials depict a Liberty/Columbia/Eagle figure that represents the nation's essence in the late-19th century. The most elaborate Spanish-American War memorials are professionally designed structures featuring dressed stone (usually marble) with a symbolic figure, military-oriented statues, and explanatory plaques. The most poignant memorials display salvaged artifacts or recast metal removed from the battleship *Maine*'s twisted remains. Monuments have been erected at the battle sites in Cuba and Puerto Rico.

Besides grave markers, large boulders with attached bronze plaques provide the fundamental Spanish-American War memorial. These monuments usually bear the names of fallen local servicemen, but inscriptions appear extremely spartan. These basic monuments do not convey lofty, symbolic patriotic messages.

Many soldier statues were placed as standard Spanish-American War memorials. An archetypal memorial in front of the City Hall in Troy, New York features a soldier, full uniform and slouch hat, and a 30/40 Krag-Jorgensen rifle. A statue on the capitol grounds in Columbia honors South Carolinians who served in the war. A statue entitled *The Hiker* is located on Memorial Drive just outside of Arlington National Cemetery.* This classic monument is seen by all who enter the visitor center area by motor vehicle. The same style statue graces the Memorial Building in Dayton, Ohio.

Other memorials were more ornate. A professionally-designed, Spanish-American War memorial was constructed at Columbus Circle in New York City to provide a monumental gateway to Central Park. This massive structure contains several larger-than-life figures including statues symbolizing the Atlantic and Pacific oceans. A smaller statuary group includes a representation of *Maine* and a Columbia/Liberty figure holding a child, symbolizing Spain's former colonies. An intricate memorial in Bushnell Park near the capitol in Hartford, Connecticut, depicts an armed, winged figure of Liberty or Columbia standing on the bow

Memorial in Bushnell Park, Hartford, Connecticut.

of a ship symbolizing America's naval strength in the late 1890s. Two bas relief figures placed on bronze plaques denote army and navy personnel in action. There is ample room to sit at the base of the memorial, an invitation for a person to linger and contemplate the sacrifices made by American servicemen.

The Maine *mast in Arlington National Cemetery, Arlington, Virginia. Photo courtesy NPS Maritime Program.*

Like previous and subsequent wars, the display of various military artifacts serves as monuments to the participants. Some of the most heart wrenching memorials were constructed from salvaged remnants of *Maine*. For instance, one of the ship's masts is located in a prominent place at Arlington National Cemetery; a sign identifies it for the visitor. A monument located at the Veterans Administration Medical Center complex in Dayton, Ohio, depicts a bowed Liberty figure with a shield pointing to an olive branch with the sunken *Maine* in the background. The inscription reads "IN MEMORIAM U.S.S. MAINE DESTROYED HAVANA HARBOR FEBRUARY 15, 1898/THIS TABLET IS CAST FROM METAL RECOVERED FROM THE U.S.S. MAINE." The memorial was erected by the "MAJOR WM. MCKINLEY CAMP NO. 94 UNITED SPANISH WAR VETERANS IN 1930." A similar plaque made from salvaged metal is located in a city park in Richmond, Indiana. A bronze cruciform-shaped plaque attached to the boulder commemorates "PORTO (sic) RICO, CUBA, AND PHILIPPINES ISLANDS." The South Carolina state capitol in Columbia displays two wartime artifacts. One is a cannon recovered from *Maine* with an inscription: "THIS GUN CAME OFF THE BATTLESHIP MAINE/THE SINKING OF THE MAINE RESULTED IN THE SPANISH-AMERICAN WAR 1898." The second, a cannon base with the inscription: "CANNON CAPTURED AT SANTIAGO, CUBA, SPANISH-AMERICAN WAR, 1898/PRESENTED TO THE CITY OF COLUMBIA, S.C. BY THE UNITED STATES." Two Spanish-American era four-inch cannon are located in the National Cemetery at Sitka. U.S.S. *Olympia*, a sister ship to *Maine*, is moored in the Delaware River at Philadelphia. This 1890s battleship gives thousands of visitors a clear idea of the military hardware developed for the U.S. Navy used to defeat the Spanish. Beyond its use as a major tourist attraction, the old ship memorializes the sailors who fought in the war.

Several of the actual battle sites were commemorated just after the war. A 1906 photo of San Juan Hill depicts a stone shaft surrounded by cannon and shells, but an undated shot reveals that the cannon had been removed and the monument appeared in shabby condition. Veterans erected a monument at El Caney, another of the bloody engagements.

Spanish-American War memorials can be found in front of public buildings such as state capitols, city halls or county courthouses, cemeteries, urban parks, on the medians of urban thoroughfares and other places such as colleges. For example a simple memorial is attached to the entry gate at Hampden-Sydney College in Prince Edward County, Virginia. A bronze plaque bears the inscription: "HAMPDEN-SYDNEY ALUMNI WHO DIED IN THE SPANISH-AMERICAN WAR/WILLIAM D. PASCO '95 AND JOSEPH C. SPOTSWOOD '96."

Monument at the Veterans Administration Medical Center in Dayton, Ohio.

Memorials have been placed on federal facilities such as military cemeteries and veterans hospitals that provide a direct link to these bygone events. The memorials and monuments cited in this article were extremely attractive and well tended, demonstrating a society's commitment to remembrance of its military conflicts.

Memorial at the Deer Lodge County courthouse in Anaconda, Montana.

Due to the brevity of the war, only the larger cities, for the most part, display the Spanish-American War memorials, although one can occasionally find monuments in rural communities. Unlike costlier World War I, World War II or more recent wars, small-town America does not appear to have widespread Spanish-American War memorial representation due to the limited number of servicemen involved in the three-month war.

A number of the monuments sandwich the Spanish-American War between the Civil War and World War I and even World War II. A dramatic memorial with a bronze eagle with spread wings located at the Deer Lodge County courthouse in Anaconda, Montana, lists several wars. The inscription reads: "SPANISH AMERICAN WAR & PHILIPPINE INSURRECTION 1898-1902" in between references to the Civil War and the (First) World War. At the Tarrant County courthouse in Fort Worth, Texas, a monument links the Civil War with the Spanish-American War. "IN MEMORY OF CONFEDERATE SOLDIERS 1861-1865 AND THEIR DESCENDANTS/WHO SERVED IN SPANISH AMERICAN WAR/WORLD WAR I/WORLD WAR II/ERECTED BY JULIA JACKSON CHAPTER UNITED DAUGHTERS OF THE CONFEDERACY 1953." Lakeview Cemetery near Calumet, Michigan displays a Civil War statue with wording "TO THE MEMORY OF HER HONORED DEAD VETERANS OF THE CIVIL WAR AND OF THE SPANISH WAR/CALUMET ERECTS THIS MONUMENT MAY-1900." The listing of the Spanish-American War with previous and later wars as opposed to a memorial dedicated entirely to the brief conflict probably stems from the number of enlistees from that community, available funding to erect a monument, as well as of the presence of an active veterans organization.

Just as the devout in the Middles Ages revered relics reputed to represent early church history, a more secular era constructs its version of venerated objects. The purpose of these war memorials was to give the observer pause for reflection and a reminder of armed conflict as well as providing instruction in patriotic values. A major difference between the Spanish-American War memorials compared to those of earlier American wars is their allegorical and symbolic artwork. For the most part, Civil War monuments are literal manifestations that depict soldiers and sailors with limited evidence of subliminal patriotic messages. Monument designers and builders in the early 1900s chose to broaden patriotic messages with mythic forms that symbolized the role and influence of the nation on the world stage. The majestic female figure representing America/Columbia/Liberty with a warship prominently appears in a number of large memorials. It sends a message to the viewer that America had much more meaning than the traditional military presence depicted in the soldier and sailor monuments, the grave marker type memorial, or salvaged remnants of *Maine*. The United States had arrived on the international scene, and the larger monuments such as the Central Park or Hartford memorials literally interpret the emergence of America's overseas influence. Although the issue of whether or not the U.S. should take on a colonial empire was hotly debated at the time, these larger memorials instruct their viewers to accept the glory, honor, and especially the sacrificial responsibility of foreign involvement. Monuments and memorials that were raised in the early 1900s provided not too subtle messages that helped prepare Americans for even larger and deadlier foreign adventures in the 20th century. Thus, these extant cultural resources provide instruction and interpretation of America's past.

Overall, there are not many Spanish-American War memorials commemorating events of 100 years ago. These cultural resources project a patriotic message long after the war's veterans passed from the scene, and give contemporary Americans an appreciation of and information about an almost forgotten conflict. If one searches with a modicum of diligence, a Spanish-American War memorial will be spotted somewhere to remind Americans of 1998 that the nation fought a short war a century ago, a war whose aftermath gave America an overseas empire marked by consequences that affect the nation even at the end of the 20th century.

Note

* Also see *CRM*, Vol. 18, No. 1, pp. 23-25.

Ronald W. Johnson is senior planner at the Denver Service Center, NPS.

Mary E. Franza is director of special education, Denver Public School System, Denver, Colorado.

Unless otherwise indicated, photos are by Ronald W. Johnson.

Bob Moore

The JNEM Arch's Unique Tram System
Still Running After 30 Years

The highlight of a visit to Jefferson National Expansion Memorial (JNEM) is a ride to the top of the 630' Gateway Arch for a panoramic view of the surrounding area. This ride is in the form of a special transportation system, a unique combination of train, elevator and amusement park ride. From the very inception of the Arch in 1947, architect Eero Saarinen envisioned a "sky ride" to take visitors to the top of the Arch. Saarinen felt that one way to interpret the memorial would be to allow visitors to see the downtown area of St. Louis, the mighty Mississippi River, and the land stretching to the West. In a 1948 description of his plans, Saarinen imagined a family at the top of the Arch, seeing "the great plains beyond the city... [and] the great droves of people who landed here and passed under your very feet on their way to open up the West." But Saarinen had no idea how to get people up the inside of his curving structure. Technology and creativity would have to be used to solve the problem.

As plans for the Arch were revised in 1957 and money became available for its construction, the Saarinen firm began to search for an elevator company to create a "sky ride." None of the major firms would touch the project, however, fearful that in any system so unique a breakdown or accident would generate lawsuits and unfavorable publicity. Then, in early 1960, a man named Dick Bowser stopped to visit a friend at the Montgomery Elevator Company offices in Moline, Illinois.

Bowser had worked at many jobs over the years, including an apprenticeship to his father, who was an elevator man. Bowser left the University of Maryland without obtaining a degree in 1942 and enlisted in the Navy, serving on a destroyer in the Pacific. After the war, Bowser invented, manufactured and installed parking garage elevators which could travel horizontally and diagonally through a structure, eliminating ramps and driveways. Bowser's friend at Montgomery Elevator told him about Saarinen's "transporter" project for the Gateway Arch, and had his secretary call Saarinen's office. "By the time he handed the telephone to me, recalled Bowser, "there were two of Saarinen's partners on the line. Their first question was, 'did an elevator have to travel vertically?' I said I didn't think so. I could remember that my father built and installed a dumbwaiter that transferred from one hatchway to another about half way up its vertical travel ... Their next question was, 'when can you meet with Eero Saarinen?'"

A month after their initial meeting, Saarinen called and requested a presentation from Bowser, as an independent contractor, for a workable Arch transportation system. The catch was what Bowser had to come up with a concept within two weeks. Bowser recalled that "The first drawing that I got had an outline of the Arch, and down at the bottom was a square that said 'elevator'—that's all there was." Bowser sketched, computed and dreamed day and night for the next two weeks to complete his plans, at home in his basement. Bowser recalled that his criteria included a National Park Service estimated passenger volume of 3,500 people in an 8-hour day, or up to 11,000 people in a 14-hour day. Although Saarinen forbade any distortion of the exterior of the Arch, Bowser had a free hand on the inside.

Bowser first looked at elevators. But getting people to the top of a 63-story catenary curve would require more than an ordinary elevator. The Arch is a triangle in cross section, and the different slopes of its curve limited a standard elevator to only the first 300 feet. Above that level, a smaller elevator which could travel at a steeper angle would be required. Between the larger and smaller elevators would have to be machine rooms, pits, and waiting spaces which would have consumed about six stories of the interior of the Arch. Bowser rejected standard elevators early in his two-week search for a solution.

Next he turned to escalators but, once again, many units would have been needed, and the cost would have been very high. Additionally, in the upper sections of the Arch the slope of an escalator would not have followed the required curvature. Bowser next considered a Ferris wheel principle. He recalled that "this involved utilizing small containers of people, with their seats pivoted to swing at any angle. This approach involved a continuous chain pulling seats which would go up one leg of the Arch and come down the other; but the distance... would have been almost half a mile, too

long for any chains or cables to negotiate successfully. The Ferris wheel system would also have had to move on the center line of the Arch, and no provision could be made for passengers to get off at the top observation area. Finally, a combination of the elevator principle and the Ferris wheel principle was developed into a train of capsules." Designing capsules small enough to fit in the cramped upper levels of the Arch was the key to solving the problem of space.

After two weeks, Dick Bowser traveled to the offices of Eero Saarinen Associates in Michigan for a 45-minute presentation. Bowser expected a preliminary meeting with the architect and his staff, but instead walked into a room filled with St. Louis area congressmen, the mayor of St. Louis, construction engineers, and Director of the National Park Service George B. Hartzog, Jr. Bowser made a 40-minute pitch of his ideas for the trams, then endured several hours of relentless questioning. He refused to be intimidated by the group, even though he was an independent contractor with a college degree. His straightforward and simple style won over the group, who realized that his unique solution to the problem was the only practical plan they had seen.

Within a few weeks Bowser had a contract, for a fee of $40,000, for a two-year job; as it turned out, the job lasted six years, until 1967, and Bowser stayed on with the Park Service maintenance staff at the Arch until 1972. Bowser's original scheme was altered very little from the idea he conceived during a two-week period in 1960. The eight small capsules, used in each of the two Arch trains, "are similar to the barrels used in cement mixers," according to Bowser.

"Each train capsule has a 5' diameter barrel.... The back has a center pivot shaft, and surrounding the open front there is a frame with rollers. The barrel can rotate within the frame, which is supported by wheels running in channel-shaped tracks.

"There are 5 seats in each capsule, so the weight of the passengers helps keep it in an upright position. Each capsule rotates approximately 155 degrees during the trip to the top of the Arch. When the capsule starts out in the load zone, the tracks are overhead, but as it goes up the Arch they come to be beneath the capsule. All the way along, the framework rotates around the capsule. A separate train runs in each leg of the Arch because there is great deal of difference in the amount of time that loading takes at the top, where it is cramped, and at the bottom, where there is a great deal of room. Each train of eight capsules is powered by a typical heavy-duty elevator machine with cables, counterweights and all of the safety features of a modern high-speed passenger elevator. Each of the Arch trains carries 40 passengers and is capable of making a round trip in 9 minutes—including loading and unloading passengers in both directions. When running near capacity each train typically carries 200 to 225 passengers per hour."

The trams have been operating for 30 years, traveling a total of approximately 300,000 miles and carrying over 27 million passengers. The final car design was by Planet Corporation of Lansing, Michigan, and they were built by General Steel Industries Inc. St. Louis Car Division, from Reynolds aluminum supplied by Joseph T. Ryerson & Son. The five fiberglass seats in each capsule are the only components of the cars and carrier frames not made of aluminum; they were designed by Eero Saarinen.

The trams were considered to be a transportation system, and found financing for construction and day-to-day operations from the Bi-State Development Agency, a local corporation licensed to run mass transportation in the St. Louis area. The unique partnership between Bi-State and the NPS at the Arch has allowed the dreams of Eero Saarinen and Dick Bowser to become a reality. A maintenance crew, dedicated to the Arch tram system, comprise some of the most specialized people in the NPS, with a history of innovative solutions to their credit. Their mission is to keep the trams running, and the service record of the system is a testament to their effectiveness. The Arch trams are a premier example of the uses of technology in interpretation. The Arch tram system created by Dick Bowser is as unique and special as the Arch itself, and is one of the many amazing aspects of Jefferson National Expansion Memorial.

Bob Moore is a historian at Jefferson National Expansion Memorial, St. Louis, Missouri.

Michael J. Chiarappa

Domesticated Waters
Delaware Bay Oystering's Science and Technology

A variety of cans were used by New Jersey oyster companies. Photo courtesy of Robert Seabrook.

The oyster industry has heavily shaped the Delaware Bay's ecology. Oystering, or oyster planting, involved the process of planting seed oysters from the bay's natural spawning grounds to privately-leased bottom that more vigorously encouraged growth. By drawing on natural beds for seed oysters and harvesting them from planted grounds, Delaware Bay oystermen sought both resource conservation and commercial success.

Since the late 1980s, I have thought about how an ecomuseum can illustrate the technological and scientific issues related to Delaware Bay oystering. An ecomuseological perspective—an interpretive and curatorial view that seeks an understanding "of how places are a construction of human interaction with environments across time and space"—can present the science and technology that shaped the industry's ecology.[1]

Since its establishment in 1988, the Delaware Bay Schooner Project has consistently shaped its vision in the form of an ecomuseum. The project has focused on restoring a 1928 oyster schooner, named *A.J. Meerwald*. The project aims to make the restoration process and the vessel a showcase for Delaware Bay history and ecology. During the course of the restoration, the Schooner Project's executive director, Meghan Wren, recognized that its process and mission could have wider curatorial and interpretive effect on the industry. Because it embraces a historical and ecologically-based approach, the Delaware Bay Schooner Project can serve as the lead organization for an ecomuseum partnership between the New Jersey Coastal Heritage Trail, the Delaware Estuary Program, the Nature Conservancy, Citizens United for the Maurice River, and the Rutgers University Shell fisheries Laboratory.

The Schooner Project uses oyster technology to link ecology-related cultural resource management and interpretation. By obtaining a series of oyster shipping sheds, and proposing an interpretive center, the Schooner Project is attempting to use another ecologically-oriented building technology to historically evaluate the environmental effect of this regional shell fishery. My involvement in the Schooner Project over the past 10 years has prompted many thoughts on how the history of technology and science, cultural resource management, and environmental studies can be integrated to interpret this regional shell fishery.

The prospect of a Delaware Bay ecomuseum hinges on the conservation and interpretation of specific sites and artifacts. Among Delaware Bay's oystering historic sites, the shipping sheds at the waterfront area known as Bivalve, are among the most important. This built environment enables the ecomuseum to interpret many significant technological and scientific themes. Built by the Central Railroad of New Jersey in the early-20th century, this structure brought greater market efficiency to a shell fishery already noted for its regional cultivation methods.

Aerial view of oyster shipping and processing facilities at the locales known as Bivalve (left) and Maurice River (right) in 1920s. Photo courtesy Temple University Libraries Photojournalism Collection.

The shipping shed not only has the potential to present the market changes this technology made possible, it shows that the use of this technology relied on an increasingly subdivided and specialized labor force. This interpretive view needs to be combined with oyster shucking—a process that took place in the area next to Bivalve and known locally as Shellpile. Shucking house technology was a labor-intensive process that emphasized volume production. Since pure food and water-born diseases became concerns during the early-20th century, the shipping sheds and shucking houses can interpret the increasing role of state regulation of the oyster industry.

We can gain several insights from an examination of the remains of Delaware Bay's historic

The Delaware Bay oyster sloop Excel *on the railways at the Flanagan Boatyard in Fairton, New Jersey. This vessel's mast was removed after 1945 when oyster vessels were permitted to operate totally under motor power. The photo shows the sloop in the early 1990s with a modern dredging and culling apparatus.*

oyster fleet. This fleet does not exist with its earlier schooner or sloop rigging arrangements, which they abandoned in 1945 when New Jersey permitted oystermen to discontinue the practice of sail dredging. Today, these demasted hulls can prompt discussion of how Delaware Bay shipbuilding technology adjusted to changing circumstances. An ecomuseum can interpret the hull design and sail rigging of Delaware Bay schooners and sloops in relation to the region's particular water conditions and the demands of operating oyster dredges. The shift from clipper bow design to spoon bow design can explain the demand for larger schooners to realize greater harvests.

As a regional initiative to cultivate shellfish, Delaware Bay oysterings incentives to plant oysters brought its participants into a much more focused relationship with the Bay. This is evident in town development. Delaware Bay oystering encouraged the development of small towns that were close to the water, near vessels, and within range of support services. The construction of housing stock reflects Delaware Bay oystering's efficiency-oriented measures and scientific management. An ecomuseum can show that oystering's technological and scientific development affected town growth along the Delaware Bay, and then use this theme for the preservation of housing stock and designation as federal and state historic districts.

A Delaware Bay oystering ecomuseum needs to illuminate the region's surviving shipyards as workplaces that served many of the regional shell fishery's most pressing needs. These sites are valuable for explaining local shipbuilding skills and technology. Also, since Delaware Bay oystering used vessels from other regions, the shipyard offers some context for explaining how Delaware Bay shipyard workers were forced to learn important vessel building ideas. When interpretive and conservation priorities concerning the historic oyster fleet are incorporated with these sites, the combination can help explain the shipbuilder's technological role in fostering a community's relationship with the oyster environment.

Today, the prominent position of dredging technology on oyster vessels can be used to effectively explain its evolution over the past one 150 years. Ecomuseum interpretation should emphasize how different oyster harvest technologies segmented or divided oystermen, and placed technological differences at the forefront of what was often a contested view of resource use. These technologies can be interpreted in relation to the state's efforts to promote oyster science, particularly the activities of the New Jersey Agricultural Experiment Station Oyster Laboratory that published bulletins encouraging both dredgers and tongers to more carefully cultivate and remove oysters from the Delaware Bay.

Oysters not only offer visitors insight into processing technologies, they introduce scientific concerns with sanitary standards. These artifacts show that state and federal regulations required oyster canners to meet safe food handling standards. Since oyster firms used label artwork to create a regional image, ecomuseological interpretation needs to correlate these resources to the interrelationship between an oysterman's regional occupational identity and the promotion of pure shellfish.

Ultimately, while ecomuseology may emphasize the place-specific nature of Delaware Bay oystering technology and science, it presents a serious challenge to cultural resource managers: which strategies will serve the interests of native inhabitants and visitors? These concerns can be addressed by linking ecomuseology with the "new museology's" desire to create museums without walls.[2] For Delaware Bay oystering, a territory heavily consumed by shell fisheries can literally become a museum setting. This environmentally responsive cultural resource management plan not only enables oystering technology and science to powerfully evoke the region's collective memory, but provides the format for "involving people in the process of both representation and interpretation"—a vital consideration in how these resources can promote heritage conservation.[3]

Notes

1 Kevin Walsh, *The Representation of the Past: Museums and Heritage in the Post-Modern World*, London: Routledge, 1992, 164.

2 Patrick Boylan, "Museums and Cultural Identity," *Museums Journal* 90 (1990):32.

3 Walsh, *The Representation of the Past*, 162.

Michael J. Chiarappa is an assistant professor of history at Western Michigan University, Kalamazoo, Michigan.

To read more about CRM and the history of science and technology, see *CRM*, Vol. 20, No. 14, 1997.

Sharon C. Park

Sustainable Design and Historic Preservation

"The Department of the Interior is committed to a leadership role in preserving our Nation's heritage. This commitment is based upon the public trust, requiring the use of scientific, cost-effective, and innovative techniques to better manage and restore our lands and facilities."

Bruce Babbitt
Secretary of the Interior

"Historic preservation is intrinsically a form of sustainable conservation. The built environment represents the embodied energy of past civilizations...historic preservation is conservation in every sense of the word."

Guiding Principles for Sustainable Design, [Draft], *August, 1993; NPS Denver Service Center*

The National Park Service, through its Guiding Principles for Sustainable Design, recognizes human civilization as an integral part of nature, and if we are to survive as a civilization, then we must protect the environment. Sustainability has been defined, in part, as the ecological balance that allows us to meet our needs without compromising the ability of future generations to meet theirs. This approach encourages environmental stewardship through a less consumptive lifestyle; the reduction of polluting forms of manufacture and chemical byproducts that may be damaging the ozone; and the practical reuse of existing and renewable materials. The retention and careful reuse of existing buildings, particularly historic buildings which have a strong connection to our past, is an emerging focus of sustainability nationwide.

The study of sustainability is still in its infancy, and the contribution of historic preservation to the broader field of environmental sensitivity is gaining appreciation. Historic architecture, particularly vernacular architecture, is by its very nature "green" because it is deeply tied to the land. The use of locally available materials; careful siting of buildings to take advantage of natural prevailing winds and sun patterns; the reliance on natural systems of solar heating and ventilation utilizing physics of thermal mass and transport of air movement; and the use of durable materials means that many historic buildings already meet many of the principles outlined for new structures intended to be of a sustainable design. The role of historic features, such as porches, awnings, large windows, skylights, roof ventilators, deep projecting overhangs, and deciduous shade trees should not be overlooked by modern designers.

Most research and product development for sustainable design has been for new construction with little attention to the rehabilitation of existing or historic structures. Sustainable design encourages the use of natural and renewable materials, new technologies for control of energy use, materials and products that have a long life and can themselves be recycled, and materials that can efficiently be maintained and renewed. Much of the work in sustainable design by the National Park Service has come from our Denver Service Center as a response to the Vail Symposium convened by the National Park Service in 1991. While much of the work of the National Park Service is within the parks, our responsibility for

The Presidio of San Francisco was designated a National Historic Landmark in 1962, and these buildings which were constructed as part of the Letterman Hospital Complex between 1899 and 1933 now house the Thoreau Center for Sustainable Design. Photo by Richard Barnes.

protecting historic cultural properties is nationwide and extends to assisting owners of National Historic Landmarks and properties listed in or eligible for the National Register of Historic Places. The Heritage Preservation Services Program, through the administration of Historic Investment Tax Credits, is beginning to publicize rehabilitation projects that reflect environmental awareness and sustainable design.

A recent tax credit project that celebrates sustainable design is located at the Presidio of San Francisco, California. The National Park Service received control of the Presidio of San Francisco in 1994 as part of the transfer of the property from the U. S. Army to the Golden Gate National Recreation Area. As part of the transfer of property, the National Park Service developed a Master Plan that allows appropriate reuse of existing military buildings through long-term ground leases. This set in place the opportunity for a public-private partnership to rehabilitate the historic buildings for a continued use with tax credits being available to investors in the rehabilitation. A key concept in the development of the Presidio was to respect the ecological systems and landscape of the San Francisco Bay and to protect the historic character of the site which was designated a National Historic Landmark in 1962. To that end, the first lease was awarded to The Tides Foundation and Equity Community Builders to develop an environmentally sensitive center for the study of the environment in four of the historic Letterman Hospital Complex buildings on the site. Known as the Thoreau Center for Sustainability, the project has set high standards for environmental design that is a model for future rehabilitation projects within historic buildings.

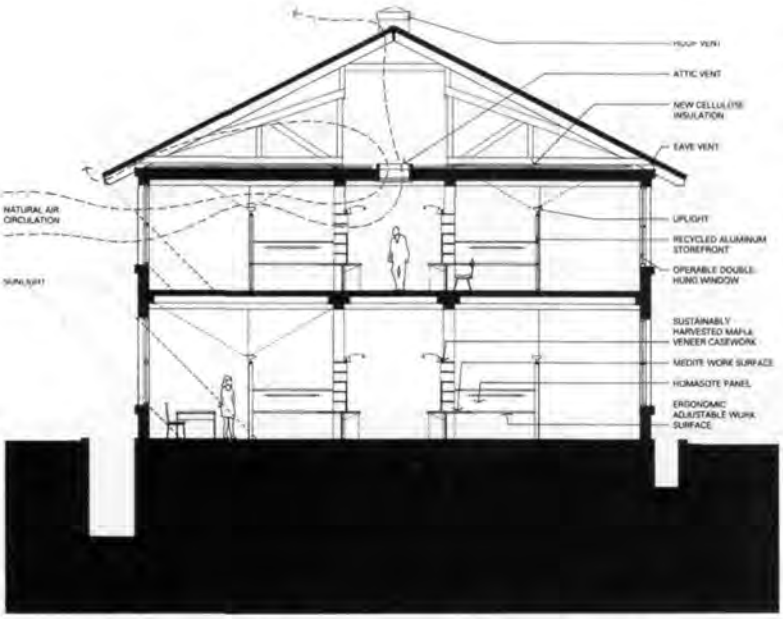
What is Sustainable Design?

While sustainable design is still being defined by many, for architecture there are perhaps four major principles.

- Provide a healthy environment for the workplace: good ventilation—strive for at least six air changes per hour as opposed to the traditional four; use of natural lighting, appealing work spaces, circulation patterns that encourage pedestrian movement; elimination of chemicals, air particulates, formaldehyde fumes, solvents, volatile organic compounds.
- Select building technologies and materials that are "green"—use materials that are biodegradable, recyclable, and made from renewable resources and that have been manufactured in a way that has not damaged the environment; select replacement materials that have a high percentage of recyclable content; select long-lasting and low-energy use products, such as specialized light bulbs; retain materials in place to the extent possible; consider thermal glazing which can be added to historic windows.
- Consume less energy in the new systems in the building than market standards—reduce ambient lighting and increase task lighting; use sensors, timers, and motion detectors to control energy use to fixtures; consider low wattage features, individual or zoned controls; use the most efficient energy system or alternative energy sources available, such as photovoltaic cells; keep systems and finishes well maintained to work at peak efficiency; consider use of low-wattage bulbs to reduce office lighting from 4 watts/sq.ft. to less than 1 watt/sq.ft. which will have a direct effect impact on cooling requirements.
- Have a recycling plan for waste and water—establish areas for collection of recyclable materials by type (paper, plastic, glass, vegetable matter); consider composting for gardening/grounds use; select materials based on the ability to recycle them later; use captured rainwater for irrigation; and consider options for use of grey water from non-contaminated sources in the building.

What are Historic Preservation Principles?

The guiding principles for historic preservation are found in the Secretary of the Interior's *Standards for the Treatment of Historic Properties*. The standards address the treatments of preservation, rehabilitation, restoration, and reconstruction and are based on the premise that historic buildings have intrinsic architectural value based on their architectural style, construction technologies, craftsmanship of materials, integrity of design, and condition. To be eligible for federal funding or the Historic Investment Tax Credit program, most buildings undergoing improvements for a new or continued use must meet the *Standards for Rehabilitation*. These standards require the retention of historic character, significant historic materials, the judicious application of new additions, where needed, that are sensitive to the design, scale, and materials of the historic building, and the retention of site and landscape features that contribute to the historic setting.



This typical section through the building illustrates how the building utilizes original features that provide light and cooling air while the selection of new materials are sustainable. Drawing courtesy Tanner Leddy Maytum Stacy Architects.

The architects and design team for the rehabilitation of the Letterman Hospital worked with the NPS Guiding Principles for Sustainable Design and met the Secretary of the Interior's *Standards for the Treatment of Historic Properties* which afforded the for-profit investors an investment tax credit valued at 20% of the multi-million dollar rehabilitation. The Thoreau Center for Sustainability is the first partnership venture in the new Presidio of San Francisco Trust and the mixed-use project brought together more than 20 non-profit organizations that work with environmental issues. It was important that their offices and public spaces reflect the values of sustainable design, impressive architectural design, and respect for historic preservation.

The Thoreau Center for Sustainability met both the principles of sustainability and historic preservation. The historic hospital buildings, built between 1899 and 1933, were mostly three-story wooden or masonry buildings comprised of large open wards, large corridor systems which could accommodate wheeled gurneys, covered porte-cochere entrances, large double-hung windows, and simple interior features of wainscoted walls and in some places stamped-metal tin ceilings. The new design for the offices retained the large open wards using glass and aluminum systems (recycled materials) for the development of perimeter offices without eliminating the natural light to interior work spaces. The wide corridors were utilized as part of the office areas with attractive shelves, files, cases, and office systems constructed from non-endangered wood and recycled substrates. The historic stairs were retained and under the state historic building codes, the use of fire sprinkler systems and glazed walls at the corridors made the stairs a pleasant, light-filled area. The enclosure of the ambulance driveways at the porte-cocheres used infill window systems that retained the large expanse of opening. The south facing areas are now conference rooms with sun shades for use on hot afternoons. The offices are not centrally air-conditioned since the climate is mild and the windows are operable. To accommodate computer climate control, the central computer closet is air-conditioned with a small unit. The steam boiler systems were upgraded and the radiator systems were retained and improved with some controllable thermostats. The artificial lighting use is kept low with a reliance on daylight and the use of long-lasting florescent bulbs and detec-

The firm of Tanner Leddy Maytum Stacy Architects designed the multi-million dollar rehabilitation to meet the clients needs for an environmentally sensitive showcase project and to allow the for-profit investor to be eligible for a 20% Historic Tax Credit by meeting the Secretary of the Interior's Standards for Rehabilitation. *The building shown here retained the historic exterior materials and the historic windows, while the new entrance canopy includes photovoltaic cells as part of the improved energy efficiency of the rehabilitated building. Photo by Richard Barnes.*

These two interior views show the light and airy work spaces and the inviting staircase connecting two floors of offices. The extensive use of natural materials, recycled materials, or renewable materials illustrates that sustainable design can work well with historic buildings. Photo by Richard Barnes.

tors that turn off the lights when there is no activity for a designated period of time.

The most educational aspect of the rehabilitation from a sustainable perspective may be the wide array of products selected by the architects' for their "green" qualities. Materials were selected that were from renewable resources, from recycled sources, or were biodegradable. Some of the unseen materials are the cotton insulation in the crawlspace and attics that are 95% recycled from post-industrial cotton fibers; medium density fiberboards for substrates made from 90% recycled wood fibers and bound together with formaldehyde-free synthetic resins; and cellulose insulation for perimeter walls made from 85% recycled newsprint. Some of the surface finish materials include acoustical tiles made from 85% recycled materials from steel slag wool and cellulose fibers; aluminum storefront systems for interior office partitions and new window infill from recovered aluminum; ceramic floor tiles made from 70% recycled glass from automotive and airplane windshields; linoleum made the old-fashioned way with linseed oil and natural components used for flooring and countertops. The painted surfaces reflect light and the paint is formulated to be free from irritants that affect people sensitive to chemical odors. The handsome cabinetry and wooden panels utilized in the offices and corridors are fully sustainable. The substrate is from recycled wood fibers and the veneers are from managed forests that are not clear-cut. The maple veneers and woods used are not from endangered species.

The success of the rehabilitation of the Letterman Hospital Complex can be duplicated in other historic rehabilitation projects. The architects evaluated the historically significant aspects of the buildings and then retained them as new features were selectively added. Much of the historic building exterior, the historic windows, the interior plan and stairs, flooring and stamped metal ceilings remain. Just by retaining historic materials they are, in effect, recycled in place and do not put a strain on landfills. For the deteriorated materials that were removed from the buildings, almost 75% were recycled into new products. The pleasant office environments, the inviting and well placed staircases that discourage the use of the elevator, the feel of natural/organic materials in the selection of finishes, the natural gardens and experimental medicinal herb production utilizing captured rainwater, the open cafe in the wide historic corridors, and the ease with which accessibility requirements were integrated has been beneficial to all — the tenants, the individual historic building, the Presidio, and the larger environment. It is a model that can and should be considered when historic buildings are being rehabilitated.

Sharon C. Park, FAIA, is the Senior Historical Architect for Heritage Preservation Services of the National Park Service. She was recently made a Fellow of the American Institute of Architects which is the highest professional award of the institute and is extended to less than 3% of its membership. She is nationally recognized for her outstanding technical publications which have advanced the standards of the profession.

The author would like to thank Rob Wallace, architect, National Park Service, and Marsha Maytum, AIA, partner in the firm of Tanner Leddy Maytum Stacy Architects for their assistance in putting this article together.

Kyle Joly, Tony Donald, and Douglas Comer

Cultural Resource Applications for a GIS

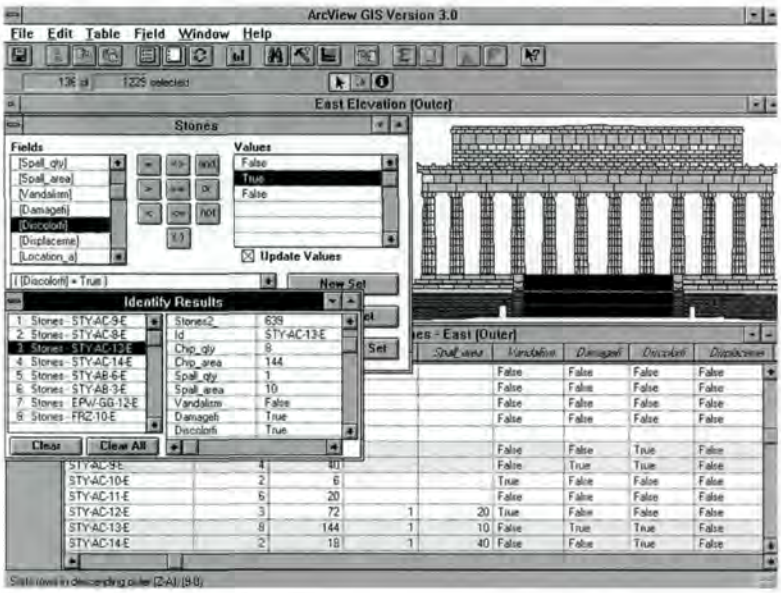
Stone Conservation at Jefferson and Lincoln Memorials

Geographical information systems are rapidly becoming essential tools for land management. They provide a way to link landscape features to the wide variety of information that managers must consider when formulating plans for a site, designing site improvement and restoration projects, determining maintenance projects and protocols, and even interpreting the site. At the same time, they can be valuable research tools.

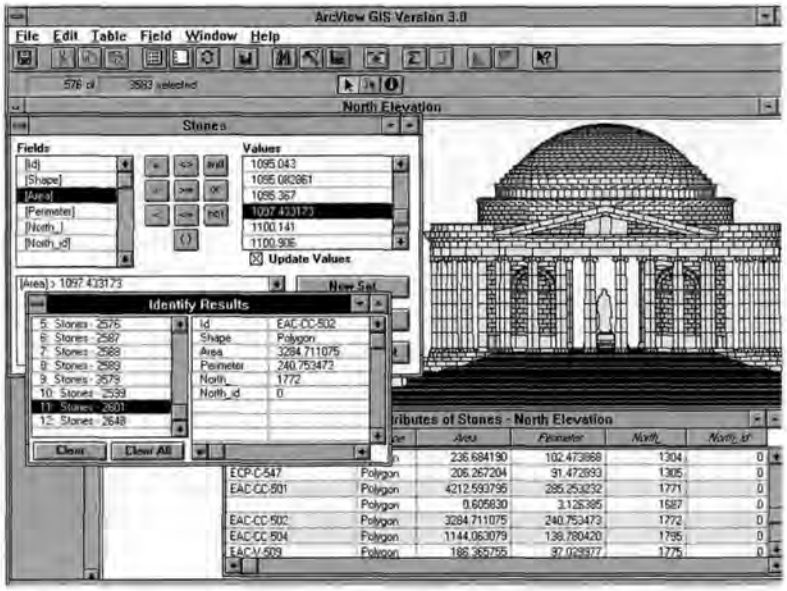
Standing structures offer a sort of geography, even though a humanly contrived one. Therefore, the capability of a geographical information system (GIS) to link geographical units to the information pertinent to site and resource management can be employed in the management of standing structures. This was the idea that inspired the use of a GIS software, ArcView, to link computer aided design (CAD) drawings of the Jefferson and Lincoln Memorials with inventories of the stones in the memorials. Both the CAD drawings and the inventory were in existence; what remained to be done was to modify the CAD files and place the inventory in an appropriately designed computerized database, and then to link the two in a GIS project. This work was carried out at the NPS Denver Service Center, Resource Planning Group, Applied Archeology Center (DSC-RPG-AAC), in Silver Spring, Maryland, with the assistance of US/ICOMOS summer interns Katja Marasovic (Croatia) and Rastislav Gromnica (Slovakia), under the supervision of AAC office manager Douglas Comer. Project guidance was provided by Tony Donald, the Denver Service Center (DSC) project architect for the restoration of the Jefferson and Lincoln Memorials, and GIS consultation services by Kyle Joly.

Both the CAD drawings and the stone surveys that eventually comprised the two halves of the ArcView project had been produced in response to deterioration of the marble and limestone from which the Jefferson and Lincoln Memorials had been constructed. Following the unexpected failure of a column volute at the Jefferson Memorial in May 1990, an extensive stone survey of the Jefferson and Lincoln Memorials was initiated by National Capitol Parks-Central, the National Capital Region and the Denver Service Center. In conjunction with this undertaking, the Historic American Buildings Survey (HABS) produced highly detailed CAD drawings of the memorials using photogrammetric software called PhotoCAD. Both projects provided excellent and previously unavailable baseline data that has been used extensively during the planning, design, and construction process and will be invaluable for future work at both of these sites. Accessing the database (in its original form) and relating it to the CAD drawings, however, proved to be so cumbersome as to be impractical. Integration of these two products (the stone survey and CAD drawings) into a GIS has had a synergistic effect. Not only are both products more user friendly, but both are more powerful analytically. The project team is now able to interpret a large amount of data in a visual format that is easier to comprehend and interpret. It will also provide a superior communications tool for the team when it comes time to interpret the issues at hand with park management.

The stone survey, begun in September of 1991 by a local architectural/engineering contractor hired by DSC, examined the integrity and appearance of the marble and limestone that com-



The ArcView screen display in response to a query asking the location of discolored stones.



The ArcView screen display in response to a query asking the location of stones area greater then 1,100 sq. inches. Stones are shown on the North Elevation of Jefferson Memorial.

prise the memorials. Stone types considered, *a priori*, at greatest risk were 100% surveyed "by hand," while a proportion of the rest (often 10%) were investigated. The survey was comprised of six primary components: existing conditions, damage (cracking), discoloration, displacement, color, and mineral inclusions. The separate components were fused into one dBASE database using Excel.

While the CAD drawings have remarkable detail of the intricately carved stones, they are saved as vector lines in the AutoCAD program in which they were produced, not as the discreet planes of stone—the geographical areas—that were the subject of the stone survey. That is, the lines that compose the drawings represent only the outline of the stone rather the region that is exposed face of the stone. Another difficulty presented by the CAD drawings stemmed from the detail they had captured; because of this, file sizes were extremely large. The drawings were simplified by removing detailed and redundant CAD layers, thus leaving only complete, detail-void stone faces, which significantly reduced file size. These polylines (outlines) were converted into regions via ArcCAD's "Clean" command. This converted file was exported to ArcView and turned into a shapefile for editing purposes.

The last important step in the integration process was to develop a unique identifier for each stone that was exactly the same in both the shapefile and the stone survey database. The identifier was based on the original stone setting numbers for the memorials. Included in the identifier were a combination of stone type (i.e., cornice, stylobate, architrave, etc.), course, setting, elevation (i.e., east, west, north, south), and survey quadrant. The stones in the shapefile were tagged with the identifier using ArcView. Columns in the database, containing the information embodied in the identifier, were merged using Word to add the identifier to the database. Once both products had matching identifiers, the two were fully integrated using ArcView's "Join" capability.

The use of ArcView has several advantages. It is, first of all, the National Park Service standard. Moreover, it is simple enough that most people with basic Windows skills can operate it, at least superficially. However, it is powerful enough that it can be used in structural analyses of the memorials. A cookbook style protocol was developed so that personnel unfamiliar with ArcView could query the database. One can easily run a query to identify stones that have particular attributes, such as discoloration. The stones with this attribute are highlighted on the shapefile (on screen image) and in the database, thus rendering them easy to find on the real world memorials. The protocol, then, provides a vehicle for developing a systematic maintenance routine schedule. More advanced queries and analysis have the potential for identifying stones at risk and developing correlations between stone attributes and structural integrity. In addition to this, as mentioned above, these data provide excellent baseline data. Researchers in the future working on stone conservation will be able to use this data to determine what damage is ongoing, cyclical, and/or static.

GIS, long used by natural resource personnel, is a powerful, effective, and, especially over the long run, efficient conservation tool. Both as a monitoring and analytical tool, the cultural resource community can benefit from the use of a GIS. Other uses to which a GIS is being used at the DSC-RPG Applied Archeology Center for cultural resource management purposes are numerous and varied. They include identifying and mapping historical and archeological features such as trails and structures, annotating site features, mapping artifact distributions, and attaching information to components of an ancient water management system at the World Heritage archeological site of Petra, in Jordan. The latter application builds upon research by the Petra National Trust in Jordan, which has identified numerous components of the complex water system.

Kyle Joly is a GIS consultant working for the National Park Service on the Jefferson, Lincoln, and Washington memorials.

Tony Donald is the project architect for the Jefferson and Lincoln Memorial Conservation Project.

Douglas Comer is office manager of the Denver Service Center, Resource Planning Group, Applied Archeology Center.

Chuck Wullenjohn

Quechan Indians Boast Long Colorado River History

Inhabitants of Southwestern Arizona for thousands of years, Yuma, Arizona's Quechan Indian tribe resides today on a 44,000-acre reservation on the California side of the Colorado River and maintains a close relationship with the terrain of U.S. Army Yuma Proving Ground. This relationship is recognized and nurtured by proving ground officials, who arrange tours for tribal members and frequently consult with them on cultural resource issues.

Quechan tribal lore explains the tribe descended from the heights of Avikwame Mountain (Newberry Peak, near Needles, Calif.) The tribe's history revolves along the banks of the once mighty and somewhat unpredictable river.

The Colorado River used to be one of the most sediment-filled rivers in the world, particularly when it reached Yuma County. Almost every spring, the river would flood with melting snow and overflow its banks, depositing tons of rich soil. This flood plain was extremely fertile, a quality the Quechan Indians actively exploited through farming.

The Quechan people produced about half of their food through farming. Their farming patterns and techniques were determined by the flooding pattern of the river. Usually in June or early July of each year, entire families moved out into the fields to plant seeds for crops. The men did the heavier work, but everyone pitched in to help. They raised wheat, beans, corn, squash, and a variety of melons. There was no need to fertilize, for there was a wealth of minerals and nutrients in the rich river silt.

Quechan warriors posing for E.A. Bonine, photographer, in 1880. Photo courtesy U.S. Army Yuma Proving Ground.

Hunting, fishing and food gathering also formed important parts of the Quechan diet. Men hunted rabbits, deer and birds throughout the year, but the Colorado River's abundant fish population made up the major source of animal protein in their diet. They used hooks and lines, but also baskets, nets and fences to trap salmon, bass and other fish. The bean pods of the mesquite and screw bean trees were probably the most important wild foods gathered by the women and children of the tribe. The pods were dried, then the beans were ground into meal and formed into cakes.

The Quechan Indians led a nomadic, generally peaceful, lifestyle. They roamed as far away as the interior of California, even visiting the seashore, and going as far as Phoenix in the opposite direction. They lived in several separate settlements rather than in a single large village. Each settlement consisted of several hundred people, each of whom belonged to a household consisting of a large extended family. These households were practical social units, for the river bottomlands could only be farmed successfully by a fairly large group of people working together. Possibly the largest and most permanent of these settlements was located at the foot of nearby Pilot Knob, located on the United States/Mexico border. The Spanish estimated the population of this village in 1774 as more than 800 residents.

Tribal members constructed dome-shaped huts of brush in which to live. A covered ramada was built next to each hut, both for shade and to provide food storage.

Warfare played a significant role in Quechan history. In addition to fighting to control trade and good river bottomland, they battled other tribes to take captives. War was viewed as a way to strengthen the tribe's spiritual power and demonstrate it to others. The tribe usually allied with the Mojave Indians, and by the 1700s, they had driven their enemies away from the Colorado River and remained in sole control of this vital resource.

The Spanish first visited the Yuma area in 1540, drawn to the region by tales of fabulous stores of gold and other riches. The Quechan Indians first had contact with the Spaniards in 1603, when 30 soldiers and two priests under Juan de Onate visited. The inhabitants welcomed

the Spanish, but had little contact with them throughout most of the next century.

The Spanish increased their contact with the Quechans throughout the 1700s, attempting both to control the strategic Yuma crossing of the Colorado River and convert them to Christianity. In 1781, the Quechans rebelled, fed up with Spanish colonialism. They destroyed the nearby Spanish settlement, killing 55 and taking at least 76 captive. This resulted in the Spanish not being able to properly support its colonies in California and freedom from dominating outside influences until the mid-1800s.

As controllers of Yuma's crossing of the Colorado River, the Quechans operated a ferry carrying passengers, supplies and livestock over the river. But the discovery of gold in California, and the resultant boom in ferry profits, spelled doom for Quechan operation of the service. American ferry companies went into operation as competitors and their own customers plundered Quechan fields and food supplies, leaving the Indians with little to eat. When United States military forces came to Yuma in 1852, Quechan power rapidly diminished and was destroyed.

In 1884, the Fort Yuma Reservation was formed as home for the Quechan tribe. Although the 44,000 acre tract of land was large, it was only a small portion of the territory the tribe previously controlled. Besides that, the land closest to the river was fertile, but the soil in the northwest portion of the reservation was alkaline, with too much salt for successful farming. A few years later, the land was divided up and individual plots were given to each member of the tribe in an attempt to encourage individual farming. Surplus land was auctioned to others, which caused the Quechans to lose control of some of the richest land. Free irrigation water, though promised, was never provided.

Today, the Quechan Reservation is the second largest Indian reservation in California. There are about 2,500 Quechans today, which is a decrease from the over 4,000 who existed when Spanish contact was first made.

The entire U.S. Army Yuma Proving Ground area was frequently visited by the Quechan people during the tribe's heyday. Pauline Owl, Quechan Cultural Resources Manager and direct descendent of tribal Chief Pasqual of the late 1800s, says people can still see remnants of their passage.

"You can see pottery shards, sleeping circles (circles of rocks) and areas of petroglyphs," she explained. "Some of the rock art we can still read today. One carving might show a picture of an animal that had been spotted. Another might be a family name. Yet another might be religious in nature. What is now Yuma Proving Ground is important to us, for that was once part of the home for our forefathers—it is an inheritance from them."

According to Pauline Jose, Quechan Museum Director, large numbers of the tribe have bravely served in our nation's military throughout this century. "We have an active veterans organization here at the reservation, American Legion Post 802, and count nearly 500 veterans of military service this century," she said. "Our people have sacrificed along with other Americans for their country."

Owl says tribal representatives have met with Yuma Proving Ground officials on several occasions to discuss historical preservation matters. She views these past meetings as having been positive and hopes for them to continue. She has particularly high praise for the museum display in the Yuma Proving Ground Range Operations Center's central courtyard.

"It's important that we recognize and respect their interest and place in the land," said Dolores Gauna, Yuma Proving Ground cultural resources manager. "They were here long before us and we need to keep that in mind."

Gauna says the relationship between the proving ground and local Indian tribes has dramatically improved in recent years, as a number of positive two-way programs have been instituted.

"We hold regular consultation meetings here at Yuma Proving Ground, plus we frequently visit tribal officials in their offices," explained Gauna. "We recently dedicated a newly constructed building here in honor of a member of another local tribe, Sgt. Bravie Soto, and regularly publish educational articles in our post newspaper for the benefit of the workforce. The intention of everything we do is to develop and maintain a close relationship based on respect, cooperation and understanding."

The Quechan Indians make up part of the rich historic legacy of Yuma Proving Ground and the desert southwest. Their story must not be forgotten, for the lessons of the past can teach us a great deal about the challenges of the future.

Chuck Wullenjohn is Chief, Yuma Proving Ground Public Affairs Office.

For further information on the Quechans, call Pauline Owl at 760-572-0213 or Pauline Jose at 760-572-0661. Dolores Gauna, Yuma Proving Ground's cultural resource manager, can be reached at 520-328-2128.

Scott G. Shultz

America's Watchtower
Saving the Old Post Office

It is "a monster Gothic derelict abandoned at midpoint on the most important avenue of the nation."

This remark, made by a federal government official in 1963, described the Old Post Office Building on Pennsylvania Avenue halfway between the White House and Capitol. Long a subject of derision, the Old Post Office survived nearly three quarters of a century of efforts to demolish it. This Romanesque landmark stands today as a remarkable effort at historic preservation and a reminder of a distinct period in American architecture.

In 1880, Congress approved the building of a new post office to handle mail service for a growing nation. The site for such a structure, however, was not easy to locate. Open public land in downtown Washington was hard to find. Reportedly, Senator Leland Stanford, founder of Stanford University and chairman of the Senate Committee on Buildings and Grounds, and his secretary and newspaperman, John B. McCarthy, chose the post office site one day while on a carriage ride down the avenue from Capitol Hill. On June 25, 1890, Public Block 323 was approved by Congress as the new site for the post office.

Block 323, on the south side of Pennsylvania Avenue between 11th and 12th Streets, was the location of numerous shops, saloons, a Masonic Hall, and the Franklin Fire Company. The process for purchasing the 30 separate parcels of land was to have it condemned and designated for government take-over. By October 3, 1891, the entire block was purchased at a cost of $655,490.77.

The task of designing the Post Office was the responsibility of the architect's office of the Treasury Department. This office was responsible for the design of all post offices, custom houses, and court houses. The supervisory architect of the Treasury Department as the building's construction commenced in 1892 was Willoughby J. Edbrooke. He is traditionally credited with the building's design, and his impact was significant. But during the seven years of the building's construction, five different supervisory architects made varying degrees of alterations to the original design. Each one of the supervisory architects was influenced by the work of architect Henry Hobson Richardson.

Richardson is considered to be one of the greatest architects in the history of American architecture. This opinion is based not only on the quality of his work but on his far-reaching influence. His best-known projects included the Trinity Church in Boston and Allegheny Court House and Jail in Pittsburgh. Richardson interpreted features of European architecture into a different and uniquely American style. Richardsonian Romanesque architecture was characterized by

Completed Post Office building in 1899. Photo courtesy Library of Congress.

Pennsylvania Avenue in 1928. Photo courtesy Library of Congress.

heavy, rough stone construction, round arches framing windows and doors that are deep and cavernous in design, and squat columns. Towers were often part of the plan. In Richardson's best examples, a single tower, massive and bold in design crowned the structure. Every characteristic of Richardsonian Romanesque, to one degree or another, was included in the design for the Post Office.

The Post Office's massive granite exterior was a product of the Bodwell Granite Company of Vinalhaven, Maine. Vinalhaven, a small island off the southeastern coast of Maine, was a major granite supplier in the United States in the last half of the 19th century. Granite from Vinalhaven's quarries supported the base of the Brooklyn Bridge, the interior of the Washington Monument, and other government buildings in Washington. Along with the importance of its stone, the Post Office was the first steel frame building in Washington, first federal building on Pennsylvania Avenue, and the first with its own electric power plant which powered over 3,900 lights. It was the largest federal office building in the city, and its great glass-covered 99' x 184' central courtyard placed it in a select category of monumental interior spaces in the nation's capital. The Post Office's imposing 315' clock tower was second in height to only the Washington Monument. The seven-year construction project, completed in 1899, cost $3,502,165.

The completed structure was turned over to the Postmaster General in the fall of 1899 and officially named the Federal Post Office Department Building. The building became the home of the Washington City Post Office, located on the first three floors, and the Federal Post Office Department headquarters for the entire nation, on floors four through eight. The ninth floor was used for storage. The exterior of the tower displayed a working clock on all four sides. City residents mentioned to Willoughby J. Edbrooke, during the building's early design phase, that the downtown area needed a clock so workers and visitors could look up at any time and see the current time. No Washington building had such a feature, and a clock added to the Post Office's uniqueness and importance.

As the 20th century dawned, the Federal Post Office Department Building's massive facade, imposing tower, and prominence on Pennsylvania Avenue was the gem of the Post Office Department. Despite the building's significance because of its design reflecting the influence of a master architect and its structural innovations, many federal officials called for the building's removal. The Columbian Exposition in Chicago in 1893 introduced a neo-classical style of architecture, and the federal government quickly adopted it as the style for all new federal buildings. Richardsonian Romanesque had become obsolete—especially since the premature death of Richardson in 1886.

The Old Post Office Building's design was outdated even before its completion. One federal official called the new building, "an unfortunate production" that would "require dynamiting before it could be brought into harmony with its surroundings." Another review in the *New York Times* said it looked like "a cross between a cathedral and a cotton mill." Plans were discussed for the new building's demolition.

This began nearly a 75-year struggle between survival and destruction. Herein lies the real story of the Old Post Office. It survived at first because the Post Office had no other place to reside. The building's design left little room for expansion and it was quickly discovered the space would soon be inadequate for the city post office. In 1914, after only 15 years, city postal operations were moved to a new facility adjacent to Union Station. Thus, the moniker "old" became forever attached to the little more than decade-old building—"a not so subtle attempt to prove the Old Post Office's time had passed and was ready for the rock pile."

The Federal Post Office Department maintained residence in the building another 20 years. These were years of tremendous postal advancement which saw a number of improvements in service: rural free delivery (1902), parcel post, cash on delivery, postal insurance (1913), cars first used to deliver mail (1914), domestic air mail service (1918), international air mail (1927). By 1934, the Post Office Department, too, had outgrown the building and was relocated immediately across 12th Street in one of the new Federal Triangle Buildings.

The Federal Triangle had first been suggested by the Senate Park Commission in 1901. It was not until the 1920s that Secretary of the Treasury Andrew Mellon made the project a reality. Federal agencies were scattered in rented space all over Washington. The idea was to build permanent federal buildings in the neo-classical style to house many government departments. The area bounded by Pennsylvania and Constitution Avenues and 15th and 4th Streets Northwest formed a triangle where the buildings were to be built. All existing structures within this triangle were targeted for demolition. Occupying the center of the triangle was the Old Post Office. Long considered an architectural dinosaur, it was destined for removal. But the Great Depression saved the building; there was no money to have it torn down. Then World War II began, and every available office was needed for the war effort. After the war, a growing federal bureaucracy needed additional space to house offices that had no other place to go; the Old Post Office became a home for numerous overflow federal agencies.

At one time or another, between the 1940s and 1970s, the following shared residence in the building: Departments of Agriculture, Defense, Interior, Justice, General Accounting Office, Interstate Commerce Commission, Smithsonian Institution, United States Information Agency, and Federal Bureau of Investigation. The FBI had the longest association with the Old Post Office, having training and personnel offices there from the 1930s until 1975.

Despite the constant use of the building, no one agency felt ownership or responsibility for its maintenance. Consequently, the years began to show on the interior and exterior of the structure. By the early 1960s this one-time jewel of the Post Office Department had become a monolithic disgrace.

The thoroughfare which the Old Post Office graced, Pennsylvania Avenue, was in much the same condition as its largest resident. Rundown shops and businesses covered both sides of the Avenue. In 1962, future Senator Daniel Patrick Moynihan stated that Pennsylvania Avenue should be the example that all great city streets should follow. President Kennedy agreed and appointed a Pennsylvania Avenue Commission to investigate what should be done to improve America's Main Street. In 1964, among its many suggestions, the Commission suggested the Old Post Office be torn down to complete the Federal Triangle. Only the tower was to remain as a city lookout and reminder of a time long since gone. Once again the Old Post Office was targeted for removal.

The old Romanesque building had its supporters, who believed the entire building, not just the tower, should remain. Suggestions were made to turn the building into a hotel, a visitor center, a place for display of additional Smithsonian exhibits, or a shopping area that would revitalize Pennsylvania Avenue. The first step to preserve the building came in 1965 when all of Pennsylvania Avenue was declared a National Historic Park and both the Federal Triangle and Old Post Office Building were recommended for inclusion in the National Register of Historic Places as Category II Landmarks. The definition of Category II Landmarks is: "Landmarks of importance which contribute significantly to the cultural heritage or visual beauty and interest of the District of Columbia and its environs, and which should be preserved or restored, if possible."

The battle was on between preservationists and those who sought the Old Post Office's demolition in order to restore architectural continuity to the Federal Triangle. During the remainder of the 1960s, the National Capital Planning Commission, Commission on Fine Arts, Joint Congressional Committee on Landmarks, and General Services Administration all supported razing the building.

During 1970 and 1971 plans were drawn and permits obtained for the Old Post Office's removal and the Federal

The preserved Old Post Office stands today as one of the most prominent features in downtown Washington, DC. Photo courtesy Library of Congress.

Triangle's completion. Preservationists struck back. Calling themselves "Don't Tear It Down," they organized and petitioned responsible government agencies.

During this preservation struggle, the Old Post Office gained the attention of Nancy Hanks. Hanks, Chairman of the National Endowment for the Arts, supported saving old buildings and involved the Endowment in the protection of others around the country. Besides, the Arts Endowment was living in rented space, and Hanks desired a permanent home for her agency.

To Nancy Hanks, saving the Old Post Office and finding a home for the Endowment seemed like a perfect fit. She traveled up to Capitol Hill when the building's fate was being debated and testified before the Senate Subcommittee on Buildings and Grounds. "Old buildings are like old friends," she said. "They reassure people in times of rapid change. They encourage people to dream about their cities—to think before they build, to consider alternatives before they tear down." She believed the Old Post Office could be a mixed use building; federal offices could occupy the upper floors while shops, restaurants and entertainment would attract visitors below. However, it was illegal for private enterprise to occupy the same space as government agencies. Hanks convinced Congress a new federal law should be passed, which led to the Cooperative Building Use Act (1976) allowing private business to occupy the same space as federal workers.

Hanks further testified that removal of the Old Post Office would cost over $60 million as opposed to $30 to $40 million to have it restored. This got Congress' attention, and she gained their support which was further bolstered by the building's addition to the National Register of Historic Places in 1973.

The Old Post Office's nearly three quarters of a century battle for survival was nearly over. Plans were made to restore the old structure inside and out. The building's granite facing, blackened by years of city pollutants, was cleaned. The interior, covered with decades of dirt and grime and with its glass skylight covered with metal, looked like a dungeon. Washington architect Arthur Cotton Moore, long an advocate of saving the building, won a national competition for the interior design. Preservation began in 1978 and was completed in 1983.

The metal roof was replaced with glass. The first floor, where the city's mail was once sorted, was partially removed opening up the space for shops and restaurants. The remainder of the building was restored for federal office use. Each of the upper floors was designated for use by the National Endowments for the Arts and Humanities, the Advisory Council on Historic Preservation, and the Institute of Museum Services.

Former National endowment for the Arts Director (1969-1977), the late Nancy Hanks was instrumental in saving the Old Post Office. Photo courtesy Nancy Hanks Collection, Duke University Library,

In the interior northwest corner, a glass elevator was installed to ferry individuals to the tower's 270-foot outdoor observation area. In addition, 10 English Change Ringing Bells were installed in the tower. The bells, a bicentennial gift to Congress from the Ditchley Foundation of Great Britain, are replicas of those at Westminster Abbey.

On February 15, 1983, the United States Congress passed legislation renaming the Old Post Office and its surrounding plazas the Nancy Hanks Center. This same legislation assigned the National Park Service the duty of telling the story of the building and assisting people to the top of the tower. Unfortunately, Nancy Hanks never saw the completion of her work. She died in January 1983.

Today, the Old Post Office is a permanent feature on Pennsylvania Avenue and the city's skyline. No longer considered an architectural outcast, it is one of Washington's most attractive features. Watching over America's Main Street, as it has for nearly a century, the Old Post Office is a reminder that there are other alternatives to tearing down.

Scott G. Shultz is a park ranger at the Old Post Office.

Abby Sue Fisher

The Seminar for Historical Administration Turns 40

In the historical agency field, there are few professional development opportunities as reputable or rewarding as the Seminar for Historical Administration. The three-week course is offered to individuals currently employed as administrators, or preparing for such a position, in historical organizations, museums, historic sites, or other preservation agencies. The program goal is to develop and strengthen leadership skills through exposure to recent trends in the profession.

Historical Perspective

The field of historical administration was just emerging when Dr. Edward Alexander, then Vice President and Director of Interpretation at Colonial Williamsburg created the Seminar in 1958. The course was initially aligned with academia, with the intent of training a new breed of professionals who would become leaders in the field. Doctoral students in American Studies were recruited from prestigious universities to learn about practicing history outside the walls of academia. The Seminar for Historical Administration (SHA) was established with institutional backing from the Colonial Williamsburg Foundation, the National Trust for Historic Preservation, American Association for State and Local History, American Association of Museums, and the National Park Service together with support from prestigious academic institutions.

During the late 1960s, the student profile began to shift from individuals with strong academic backgrounds to those with localized and diverse experiences. Curriculum adjustments were as much a sign of changing times as the mix of participants. When the SHA was initiated in the late '50s—historic interpretation was the focus of the course. As the profession evolved and social trends emerged, Seminar sponsors continually worked to keep the course vital and relevant.

Traditionally, the Seminar covered four categories of study: Background, Administration, Research, and Interpretation. Background included introductions about the services provided by each sponsoring institution, information about preservation, and a historical overview of the profession. Administration covered topics such as fund-raising, ethics, and relations between trustees, directors, staff, donors, constituents and community. Research focused on studies in preservation, architecture, archeology, conservation and collections. Interpretation dealt with exhibits, education, visitor services, publications, and outreach. The four components of the curriculum continue to set the tone for the Seminar although the percentage devoted to each has been modified over the years.

By 1976, the topic of administration took the lead in 58% of the curriculum sessions, growing to 70% by 1983. The need to emphasize administration occurred in response to a growing demand for more effective administration in non-profit historic agencies. What had begun as a training opportunity to recruit professionals, evolved into a program anxious to meet the demands of the field.

The Seminar is no longer an overview or introduction to historical administration. Instead, the course provides specific guidelines and strategies that contribute to professional development in the field.

SHA Today

The established setting for the seminar is historic Colonial Williamsburg where Foundation staff extends resources and hospitality to Seminar participants over a three-week period. Participants receive a President's pass, entitling them to explore Colonial Williamsburg at their leisure, participate in activities, take advantage of local expertise for noon time meetings, behind the scene tours, or learning about the development of interpretive programming. Immersion in an 18th century landscape during autumn only adds to the other privileges the Seminar affords.

Course content offers a comprehensive view of the management and leadership skills needed to successfully operate in today's non-profit community. During the seminar, approximately 45 faculty present 28 sessions on a variety of topics including historic preservation, defining community, education, interpretation, heritage tourism, human resources, legal issues, ethics, fund-raising, financial management, and team building. While each session may not apply directly to your present position, chances are you will deal with all of the topics at some point in your career. Each participant leaves the Seminar with an enormous quantity of insight and professional resources.

A recurring message throughout the course was about surviving as leaders in non-profit cultural institutions during an era of high competition for local, state, and federal funds. With crime, welfare, and education dominating the minds of

politicians and constituents, it is vital for our institutions to be relevant to the communities we serve. When we engage the public by effectively using resources to educate and contribute to a better understanding of history and material culture, we will have succeeded in fulfilling our mission.

The Seminar for Historical Administration is the longest running and undoubtedly the best professional training course in historical administration available in the country. The course inspires change and leaves a lasting impact on all those who attend. Graduating from SHA is a great honor as well as an achievement that endorses contributions to the profession through excellence and leadership.

This year marks the Seminar's 40th anniversary, and festivities are planned for a reunion at Colonial Williamsburg on November 21, 1998. Alumni from throughout the United States and Canada will be convening to share their commitment to SHA and the profession. Participate in the 1998 Seminar and come join us!

Abby Sue Fisher is stationed at Mississippi National River and Recreation Area in St. Paul, Minnesota, but works as a curator out of the NPS Midwest Support Office in Omaha, Nebraska. She is a graduate of the 39th annual Seminar for Historical Administration.

For more information on the October 31-November 21, 1998, seminar, contact Peggy McDonald Howells at 757-220-7211. The Seminar is co-sponsored by the Colonial Williamsburg Foundation, the American Association for State and Local History, the National Park Service, the National Trust for Historic Preservation, and the American Association of Museums.

Karen Stevens

Building Project Records at Independence

How can parks fulfill the NPS mandate to document, preserve, and protect building project records? Parks engage in maintenance, preservation, rehabilitation and restoration activities during the normal course of managing park resources. Simple or complex, large or small, each project generates its own set of documentation with permanent value that requires curation by park personnel in accordance with NPS *Museum Handbook*, Part I and Part II, Appendix D (1996).

Parks may find some guidance in Special Directive 94-6, "Ensuring that Projects Generating Museum Collections Fund Cataloging and Basic Preservation." Formulated to address museum collections not covered by Special Directive 87-3, "Conservation of Archeological Resources" and Special Directive 91-4, "Ensuring that Natural Resource Projects Fund the Curation of Collections," the guidelines in 94-6 apply to other cultural resource projects such as building projects. The cultural resource management records produced by construction projects include drawings, reports, photographs, and correspondence in a variety of audio-visual, electronic and textual formats.

Independence National Historical Park is engaged in a multi-phased, multi-year project for the rehabilitation of park utilities and structures, which will double the quantity of building project records archived since the establishment of the park. The volume, size and format of documentation generated by the program will strain the park's ability to pay the cost associated with storage, processing and cataloging.

Phase I of the Utility Improvement Project (UIP), is expected to span several years, and involves the replacement of utility systems in five structures on Independence Square—Independence Hall, Congress Hall, Old City Hall and the East and West Wings of Independence Hall. In addition, rehabilitation of the HVAC systems of many other park structures is expected to continue into the next decade.

In addition to rehabilitating the utility systems of park structures, the program will also address hazardous materials abatement, such as asbestos and lead paint. The park will take the opportunity to address accessibility issues, as required by the American with Disabilities Act (ADA) of 1990. And finally, as funding permits, the park hopes to develop and install new exhibits in several historic structures.

Independence NHP is listed on the National Register of Historic Places. In addition, First and Second Banks have been designated National Historic Landmarks and Independence Hall and Independence Square have been designated a World Heritage Site. The park is significant, not

only for the many historic events that occurred here, including the signing of the Declaration of Independence and the U.S. Constitution, but also many park structures are architecturally significant.

The rehabilitation program undertaken by the UIP provides an opportunity to study and document park structures unequalled since the establishment of the park in 1948. The documentation meets the park's cultural resource management needs and will be of significant research value to the Service as well as other researchers. In accordance with Special Directive 94-6, park staff are responsible for developing strategies to ensure that project documentation is captured in a timely manner, funding for basic curation of these archival records is secured, and budgeting from operating base funds for the ongoing maintenance costs of curation is realized.

In the early stages of the UIP, Independence NHP adopted a proactive documentation strategy for the systematic transfer of project records created during the Design Development (Title I and II) phase for the Independence Square buildings. The park has hired a professional archivist who will ensure deposit of UIP documentation of permanent value in a secure location as soon as it is made available to the park as well as to curate these cultural resource management records.

Several thorny issues remain unresolved. The preliminary plan to transfer project documents to the archives via a distribution list broke down forcing the archivist to rely on the good will of DSC and INDE staff to send records to the archives and to provide her with information on recent documentation availability.

Working with DSC staff managing the UIP, the park compiled lists of formats and quantity of records produced for each component of the project completed or in process. Once the park identified a list of project records that staff wanted for permanent retention in the archives as museum collections, costs for storing, processing, cataloging and ongoing maintenance were computed. The figures were sobering.

It became very clear that the park must take steps to act on the guidelines in Special Directive 94-6 in order to fulfill its responsibilities to document, preserve and protect the UIP records scheduled for permanent retention in the archives. First, INDE needs to reevaluate the list of UIP records for permanent retention to define what staff really wants to deposit in the archives, keeping in mind the program needs of the Maintenance Division and Historic Architect Branch.

Second, the park must devise a building records management plan that can be written into task orders, contracts and agreements during the project planning process. Finally, park staff must ensure that included in the UIP project budget are line items for curation of cultural resources documentation that become museum collections in the archives.

The park has developed the resources to pursue this proactive strategy and support ongoing maintenance of archival collections: the archivist is responsible for curating building project records and the UIP project includes plans for a new library/archives facility in the Merchants Exchange Building rehabilitation. INDE is committed to the National Park Service's mission of preserving, protecting and interpreting cultural resources.

Karen Stevens is the supervisory archivist at Independence National Historical Park.

Guide to African-American Historic Places

African American Historic Places describes more than 800 properties nationwide listed in the National Register of Historic Places for their significance in African-American history. Also included are eight articles on the African-American experience and study and five geographic and thematic indexes which enhance the book's value as a reference for everyone interested in African-American history. Edited by Beth L. Savage, an architectural historian with the National Register, the 623-page book may be ordered from John Wiley & Sons, Inc. at 1-800-225-5945. ISBN 471-143456. The price is $25.95.

Departments

—*continued from page 4*

(3) Archeology in the 1930s; (4) WPA Archeology; (5) TVA Archeology; (6) National Park Service Archeology; and (7) The Legacy of New Deal Archeology. These topics are treated in a remarkably comprehensive and well-organized manner. Readers interested in what went on at particular times, areas, and by particular organizations and federal agencies can find it easily in this book.

This book is much more than a recounting of people, places, and scientific accomplishments, however. Lyons has done an excellent job of documenting the administrative history of New Deal archeology, the reasons why things were done when, where, and how they were done. The book is thus a valuable accounting of how what was arguably the greatest national archeological program ever conducted actually came about and evolved, or some might say lurched along, until it was abruptly terminated by the onset of World War II. For those of us now practicing in what is another massive period of federal sponsorship of American archeology, the CRM era, the lessons of the earlier New Deal experiment are important to consider, and particularly sobering.

It is clear that the rich legacy of New Deal archeology, that we so cherish and appreciate to this day, came about because of the hard work of a great many people, and the inspired leadership of a number of private citizens and professional archeologists alike, who took advantage of the opportunities that presented themselves, and forged ahead in spite of great difficulties. What the New Deal archeological program also showed was that, while it was possible to legislate opportunities for fieldwork and analysis, and dictate minimum technical standards, excellence in this branch of scientific research depends in large measure on the abilities and work ethic of the individuals in charge of the excavations, the labs, and the writing. New Deal archeology devoted relatively little funding to reporting, and it is an impressive testament that many of the archeologists involved devoted large portions of their subsequent careers to documenting what was done and found.

Anyone interested in the development of southeastern archeology, or in the operation of a large government program directed to scientific as well as political ends (i.e., employing large numbers of people at relatively low cost), will want to read this book. This book, and a second excellent study appearing almost simultaneously, *Digging for Dollars: American Archaeology and the New Deal* by Paul Fagette (New Mexico 1996), offer detailed, scholarly treatments of New Deal archeology. The latter volume provides a more general national-level perspective, complementing the detail found in Lyon's volume. For readers interested in following up on these works, some excellent popular writing on New Deal archeology has also appeared in the form of personal reminiscences on the events of the era by a number of its key figures. Among the most notable of these accounts occur in *Ocmulgee Archaeology: 1936-1986*, edited by David J. Hally (Georgia 1994), and in the introduction to *Archaeological Survey of Northern Georgia* by Robert Wauchope (Society for American Archaeology Memoirs 1966). It will be interesting to see whether similar popular and historical accounts appear in another generation or two, recounting the events of the past 25 years of CRM archeology.

Field Guide to New England Barns and Farm Buildings by Thomas Visser. University Press of New England, Hanover and London.

Reviewed by Stephen C. Gordon, Survey and National Register Manager, Ohio Historical Society.

Until fairly recently, studies of American barns have largely been the province of antiquarians and amateur enthusiasts. Photogenic symbols of our rural heritage, these enduring monuments of hard work, primitive construction, and rural landscapes have been portrayed as rustic, almost idyllic curiosities. Previous studies, while capable, have typically emphasized the unique and picturesque, be it round barns, stone barns, or pioneer log barns.

Cultural geographers such as Robert Ensminger, Allan Noble and Hubert Wilhelm represent a growing fraternity of academic scholars studying barns in a broader material and cultural context. Ensminger's *Pennsylvania Barn* (1992), inspired by Dornbusch's seminal 1956 study, and Noble's *Old Barn Book* (1995) epitomize the serious attention recently given to documenting and studying North American barns. Joining this list of barn studies is Thomas Visser's *Field Guide*, a morphological examination of

barns based on windshield field studies in six New England states. Of the 13 major barn studies published during the 1990s, Visser's work, classifying barns according to their form and function, is in the estimation of this reviewer the most useful field guide examining a specific North American region. Interim director of the University of Vermont's nationally renowned historic preservation program, Visser has collaborated with the University Press of New England in producing this much needed volume.

Subdivided by history and type into six chapters, *Field Guide* is a neatly organized and attractively illustrated documentary of a universally appealing cultural artifact. Perhaps this is in part because wood and stone are almost primordial in their appeal to humans, and when joined together by skilled hands can produce a work of art. Of course, to farmers barns are utilitarian structures built to provide shelter, but to the serious observer they are icons from an agrarian past. Special attention is given to barn construction practices with a concise discussion of scribe rule, square rule, and balloon frame traditions. Photographic images of saw marks and detailed views of joinery are first-rate. Beyond framing, there are brief explanations of wall sheathing, doors, windows, cupolas and specialized barn types. Equally well chronicled are outbuildings, buildings for feed storage, including silos, farm buildings for specialty crops and other buildings such as poultry houses, horse stables and smokehouses. But it is Visser's examination of barn types that emerges as the book's heart and soul. From English to Arcadian to bank barns, the reader is treated to succinct descriptions and photos of virtually every identified New England barn type.

19th-century tobacco barn, Prince Georges County, Maryland. Photo courtesy HABS, NPS.

One of the many strengths of Visser's volume is how period illustrations and drawings are incorporated into the text, which is generously supplemented with contemporary descriptions. For example, in the brief sub-heading describing ice houses, two primary accounts from 1864 and 1926 are quoted. Agricultural journals such as the *New England Farmer*, *Maine Farmer* and *American Agriculturist* are generously cited, although manuscript materials such as builders' journals, contracts, and correspondence are not referenced.

Publications that help break new ground are often difficult to critique. Still, finding a way to include even a brief examination of historic fence types, an indelible element of the rural New England landscape, would have complemented the subject. This reviewer would have welcomed additional schematic drawings of barn framing techniques and more perspective views, as well as some images of the rapidly disappearing Yankee farmer and his cherished livestock. Too nostalgic—perhaps, but a solidly researched work of this type would not have been diminished by a subtle human touch. A final quibble—only one small map of the study area is provided, certainly not enough for a field guide.

Handsomely bound in a hard plastic cover, *Field Guide* is destined to become a glovebox companion for many rural New England enthusiasts. Visser's informative volume is a welcome synthesis of extensive field work and academic research, comfortably presented in layman's prose. One hopes publications such as this will help build a better appreciation of this important yet increasingly endangered species of buildings.

Archaeological Ethics. Karen D. Vitella, editor. AltaMira Press, Walnut Creek, CA, 1996.

Reviewed by Barbara J. Little, archeologist, National Register of Historic Places, NPS.

Archaeological Ethics is a collection of well-written, informative articles from *Archaeology* magazine. Nearly all were published within the last 10 years. The geographic coverage is worldwide, from the Cape York Peninsula in Australia to Mali in Africa to New York City to St. Lawrence Island in Alaska.

The book originated in the editor's seminar on archeological ethics. The introduction is useful in explaining the importance of context for interpreting archeological finds.

The essays are organized into six sections and there are two appendices. The first appendix contains statements on professional ethics from three professional organizations—the Society of Professional Archeologists, the Archaeological Institute of America, and the Society for American Archaeology—but not, surprisingly, from the World Archaeological Congress. The second appendix is a resource guide.

Essays in the first section, "Looting and Collecting," contend with the ethics of collecting and some of the tensions between museums and archeology. It is impossible to avoid the direct connection between the destruction of sites by looters and the willingness of museums and private collectors to pay for artifacts.

"Responses to Looting" includes some creative and effective reactions by national and state governments and by a private foundation. The National Park Service and the Bureau of Land Management run sting operations to catch traffickers in illegally acquired artifacts. The gov-

ernment of Turkey aggressively pursues stolen artifacts through international legal channels. Through its training program for avocational archeologists, the Arkansas Archaeological Survey accomplishes a great deal of professional quality work and dramatically expands public awareness of the looting problem. A private foundation, the Archaeological Conservancy, protects sites by purchasing them.

The diverse essays in "Cultural Heritage in Time of War and Political Unrest" bring up some troubling issues about cultural identity and its malicious destruction. The Hague Convention of 1954 resulted from long-standing international efforts to protect cultural heritage in times of war. Its preamble states "damage to cultural property belonging to any people whatsoever means damage to the cultural heritage of all mankind, since each people makes its contribution to the culture of the world" (p 129). This section provides a good summary of why looting archeological sites it so troublesome, and not only to archeologists. We lose more than we think with every destroyed site, every record of human achievement.

Details of this loss of our human cultural heritage are described in the essays under "Affected Peoples." A quote from a villager in one of the world's poorest countries, Mali, summarizes the impact of looting, "Do you realize that by stealing our fetishes those impious ones have stolen our very gods?... When you tell me that the gods they stole from us are probably in the house of a man who does not even know our religion, I am deeply hurt. To us, this is a crime" (p 164).

"Reburial and Repatriation" includes two essays on Native American reburial and one on the African Burial Ground in New York. Some successful cooperation between Native Americans and archeologists in Iowa is described. In an article on the effect of the Native American Graves Protection and Repatriation Act (NAGPRA), two archeologists offer their opposing viewpoints on the legislation.

The final section has three short essays on "Professional Behavior." Professional archeologists are criticized for their poor record in communicating with the general public. Because public outreach has not been part of professional academic responsibilities, public perceptions about collecting antiquities and the real cost of looting have continued to counter efforts at saving sites.

Archeology is not just for archeologists. History is not just for historians. The issues raised by this book are important beyond concerns of any particular profession. There is clearly a collision of ethical systems at work. Archeologists might define it as a clash between business for profit and knowledge for the public good. Or perhaps it is a clash between aristocratic values of privileged personal ownership and democratic notions of common heritage. Where does the entitlement come from that allows one segment of the population to buy and thereby destroy another's history or sense of nation? Do we have common ground, or is world history just another commodity? Can the members of a modern secular society be convinced that tangible material objects are not simply commodities, but can embody a way of life, something that is sacred to its rightful owners?

This book is an important resource for archeologists, for museum professionals, for historians, for interpreters, and for anyone interested in objects, ownership, research, and the uses of history.

Every essay is followed by discussion questions, which are ideal for stimulating debate. I can imagine a successful use of the book for series of roundtable discussions in Park's Friends groups or historical associations. Such focused reading and discussion groups would raise awareness of these vital issues in regions most affected by looting (that is, everywhere in the United States as well as around the world).

Landmarks in the Landscapes: Historic Architecture in the National Parks of the West by Harvey H. Kaiser, Chronicle Books, San Francisco, California, 1997.

Reviewed by Bryan Clark Green, NCSHPO Historian, Heritage Preservation Services, NPS.

This large format book marshals over 450 illustrations (contemporary color photographs, historic black and white photographs, and line drawings) to portray the architecture of 24 western national parks. The study opens with two introductory chapters about the national park system and its architecture, with the main emphasis of the work dedicated to each of the parks addressed in detail.

The book's concern is "historic architecture in the natural setting. Its aim is to draw attention to those structures too distant from population centers to enjoy readily available voices of preservation support" (p. viii). Unfortunately, the body of the work does not often directly address preservation issues. However, it elegantly and extensively documents the variety of architectural forms employed in the western national parks (with few exceptions, depicting only those constructed before WWII), and for that reason alone is a valuable and useful resource.

The introductory chapters sketch the history of the NPS and the architectural background for the structures under consideration. The chapters are largely concerned with the institutional history of the NPS and a design pedigree deriving in large part from country houses and Adirondack camps and the landscape. The role of the landscape is ubiquitous yet largely unexplored, save in an associational manner. For example, Kaiser writes "The inspiration

for the Rustic architecture produced by the railroaders (the promoters behind many of the early park hotels) and their creative designers came from many sources. The primary source was the landscape, which offered materials long-used by indigenous peoples" (p. 17).

Unexplored is the role of nostalgia and the importance of very modern and sophisticated (and very un-indigenous) engineering and construction behind many of the larger hotels (for example, the Ahwahnee Hotel, Yosemite NP, was constructed with a very modern steel and concrete frame). Many of these landmarks are self-consciously nostalgic designs, built of modern materials (often imitating traditional materials) creating a historicized image of a rustic, leisured past that never actually existed. This sanitized and nostalgic past was seen to be rapidly disappearing in the face of the very instruments of modernity (the railroad, the automobile, and electricity) which were making the Nature embodied by these parks rarer and ever more worthy of retention. The irony of the promotion of national parks by railroad and automobile interests is essential to an understanding of these landmarks—no less than it is to an understanding the role of Henry Ford in creating the enthusiastically-historicized Greenfield Village.

Three chapters document the 24 selected parks and form the heart and bulk of the book. The individual entries draw heavily from internal NPS reports and are extensively illustrated. The lasting contribution of this book is to make available to the general public information about historic structures in the NPS western parks that heretofore has been confined to reports largely inaccessible and frankly of little interest to the reading public. Efforts to educate the public about the importance of these historic structures depends upon the dissemination of such information, and the publication for a general audience of the findings of these NPS reports is a useful and beneficial service. While not imputing any error or misrepresentation, one might wish for more independent research and confirmation of the findings of these reports (the 24 entries covering 257 pages are documented with 75 footnotes, citing only 32 non-NPS works). In addition, while the author indicates that some of these structures are included in these lists, no National Register or National Historic Landmark nominations are cited.

The photographs deployed in this work—both historic and contemporary—emphasize the role of the individual landmark as events in the landscape. This emphasis—while consonant with the theme of the book—often makes it difficult to study the structures themselves. They are often overwhelmed by the picturesque qualities of both the landscape and the composition of the photograph itself. A more serious pair of problems exists with the photographs, however. The illustrations are not keyed to the text, and appear to have been assembled independently of the text. They do not necessarily correspond to the text, and distractingly require the reader to follow two simultaneous narratives, one carried by the body of the work, the other by the extensive (and generally helpfully detailed) captions.

This is not a history, but rather a personal photographic journey, a series of often deftly captured anecdotal experiences—each recording an attractive and sometimes highly scenographic moment in the life of the landmark—but in the end, the work does not build a coherent argument. We are not told why—beyond the fact these structures are often fetching and occasionally extraordinarily moving—we ought to devote more effort to their preservation. In fact, the very picturesque nature of the photographs works against this stated purpose of the book—not one of the photographs makes the visual argument that any of these structures is in need of additional attention from the preservation community. They are depicted as evocative and wistful objects, not as real buildings in need of very real attention.

The lasting contribution of this book is its useful and lively chronicling of the historic landmarks selected for inclusion. The information disseminated about these buildings will hopefully educate the interested reader in the cause of preserving these important architectural legacies in our national park system.

New Publications

Building the National Parks: Historic Landscape Design and Construction by Linda Flint McClelland, historian, National Register of Historic Places, NPS.

Fifty years ago, the Civilian Conservation Corps ended, and with it concluded a grand era of park-building marked by naturalistic principles, craftsmanship, and native materials. Rooted in the writings of Andrew Jackson Downing and the 19th-century urban parks of Frederick Law Olmsted and others, naturalistic park design flourished in the 20th century in the United States under the stewardship of the National Park Service. With the founding of Yellowstone National Park in 1872, national parks were charged with the paradoxical dual mission to make the nation's finest natural wonders accessible to the general public while preserving them unimpaired for the enjoyment and appreciation of future generations. At the urging of conservation-minded individuals and organizations, including the American Civic Association and American Society of Landscape Architects, Congress in 1916 established a National Park Service to administer the national parks. Shortly thereafter in 1918, an official pol-

icy called upon national park designers to locate and construct roads, trails, and other facilities in ways that harmonized with the natural setting and ensured that the natural wonders and scenery remained unimpaired. In subsequent decades, park designers—landscape architects, architects, and engineers—forged a rich legacy of scenic roads and trails, picturesque park villages, campgrounds and picnic areas, scenic overlooks, and majestic views.

Building the National Parks is a comprehensive history of the policy, principles, and practices of landscape design through which the natural parks of the national park system became accessible to ever-increasing numbers of visitors. Written primarily from the perspective of landscape architecture, the book traces the evolution of the naturalistic ethic for park design in the United States from Downing and Olmsted to early-20th-century practitioners Henry Hubbard and Frank Waugh and finally to the designers of national and state parks.

Early chapters chronicle the contributions that the Park Service's first landscape engineers—Charles P. Punchard, Daniel R. Hull, and Thomas C. Vint—made to a distinctive style and standards of design for roads, trails, and park villages based on naturalistic principles and native materials. The book highlights events such as the 1926 cooperative agreement with the Bureau of Public Roads that enabled national park designers to build state-of-the-art roads while preserving park scenery and harmonizing built features with the natural setting of each park. It closely examines the major design trends that were in place by the 1930s, including a process of master planning that guided park development, principles of rustic architecture that ensured harmonious construction and design, and practices of landscape naturalization whereby native trees, shrubs, and wildflowers were preserved or planted to erase the scars of construction and create the illusion that nature was undisturbed.

Several chapters examine the New Deal era, 1933 to 1942, when the park system greatly expanded, and planning and construction in national parks proceeded on an unprecedented scale through programs such as the Civilian Conservation Corps (CCC) and Public Works Administration. During this decade of progress, the National Park Service also directed the work of the CCC in state and local parks and helped forge a state and federal partnership for outdoor recreation. Examining national park design and construction since 1940, a final chapter covers the World War II era, the modernism of Mission 66, and the shift in emphasis from scenery preservation to environmental protection during the Environmental Era.

Building the National Parks, a publication of the National Register of Historic Places, is an updated edition of *Presenting Nature: The Historic Landscape Design of the National Park Service, 1916 to 1942*, which was published by the Government Printing Office in 1994. It provides a national context for identifying, evaluating, and registering the vast number of historic park landscapes influenced by the design ethic developed and practiced by the National Park Service in the early-20th century. This group of significant properties includes not only the developed areas of national parks but also the many state and local parks developed by the CCC from 1933 to 1942 under the direction of landscape architects, architects, and engineers of the National Park Service. Properties relating to this context may be nominated to the National Register of Historic Places under the multiple property listing, Historic Park Landscapes in National and State Parks (October 1995).

Building the National Parks is available in hardbound (ISBN 0-8018-5582-9) and paperback (ISBN 0-8018-5583-7) from the Johns Hopkins University Press, 2715 N. Charles Street, Baltimore, Maryland 21218-4363; 1-800-537-5487; <http://www.press.jhu.edu>.

The **American Institute for Conservation of Historic and Artistic Works** (AIC) announces the availability of a new brochure, *Basic Guidelines for the Care of Special Collections*. Designed for both homeowners and cultural institutions looking for an introduction to object preservation, the brochure addresses important topics such as organic versus inorganic materials, environmental control, and proper display and storage of objects. This brochure replaces the previous AIC publication, *Caring for Special Objects*. For further information, AIC offers a variety of additional brochures on conservation and preservation of specific types of objects, including the care of photographs, paintings, works of art on paper, and videotapes.

Also available is the *1998 Membership Directory* which has been an indispensable resource for conservators, museum, library, and arts professionals, students, and others who need to make contact with the conservation field.

For a free copy of any AIC brochure or information on the *Directory*, contact: AIC, 1717 K Street, NW, Suite 301, Washington, DC 20006; 202-452-9545; fax: 202-452-9328; email: <InfoAIC@aol.com>; web site: <http://palimpsest.stanford.edu/aic>.

The National Trust for Historic Preservation's Information Series provides concise information on basic and frequently used preservation techniques. Topics cover a wide range of preservation and organizational development issues. Each booklet includes an introduction to the subject, along with case studies and a resource section listing additional publications and helpful organizations.

Information booklets can be purchased individually or as a complete set. To order a free information catalog, contact Information Series, National Trust for Historic Preservation, 1785 Massachusetts Avenue, NW, Washington, DC 20036; phone: 202-588-6286 or 202-588-6189; fax: 202-588-6223.

Legal and Financial Aspects of Architectural Conservation, edited by Marc Denhez and Stephen Neal Dennis. This book is a compilation of papers and reports presented by experts from 10 countries at an international conference at Smolencie Castle, Slovakia, in November 1994, sponsored by the US Committee of the International Council on Monuments and Sites (US/ICOMOS) and Academia Istropolitana in Bratislava, Slovakia. It documents strategies for protecting the cultural heritage of societies in the midst of reinventing themselves and describes various legislative approaches that can help to restore tourist destinations and conserve neighborhoods.

BULLETIN BOARD

To celebrate Black History Month, **National Register, History, and Education** presents "Aboard the Underground Railroad," a virtual travel itinerary that introduces researchers, historians, preservationists, and anyone interested in African-American history to the fascinating people and places associated with the Underground Railroad. Located on the National Register of Historic Places' web site,

"Aboard the Underground Railroad" is a collaboration between the Park History, National Historic Landmarks, and National Register of Historic Places programs and provides documentation and photographs on 21 historic places that are either listed in the National Register or designated National Historic Landmarks. The virtual travel itinerary also includes a map of the most common routes taken on the Underground Railroad and maps of individual states that mark the location of the historic properties. In addition, "Aboard the Underground Railroad" explains how the network was born and how it has become ingrained in American culture.

The itinerary will be showcased on the National Park Service's Cultural Resources web page for Black History Month. To travel along the Underground Railroad, visit the National Register home page at <www.cr.nps.gov/nr>.

The Booker T. Washington National Monument and the Organization of American Historians are sponsoring a symposium March 19-21, 1998, at the Marriott Hotel in Roanoke, Virginia.

The symposium, entitled "Washington and DuBois at the Turn of Two Centuries," will bring together historians, educators, site interpreters, community leaders and others to discuss the legacies of Booker T. Washington and W.E.B. DuBois.

Panelists and special guest speakers will discuss how the ideals and teachings of these two African-American leaders relate to today's society and ongoing civil rights discussions, and the role of educators, historians, and museum and site interpreters in making these issues relevant to schoolchildren and the general public.

The program includes Julian Bond, well-known civil rights activist and scholar, other preeminent historians of Washington and DuBois, many of the rising stars in Southern and African-American history, and historical site interpreters.

Registration packets, including full program, are available from the park. Please call 540-721-2094.

SAH Study Tour

The rich architectural heritage of **Spanish Colonial Mexico** is the focus of the SAH's 1998 foreign study tour. The two-week itinerary will take participants to a selection of cities, towns, and rural settings where one of the finest chapters in the history of architecture and town planning of the Americas was written. Registration deadline is March 26; contact the SAH office in Chicago at 312-573-1365 (voice), 312-573-1141 (Fax), or <info@sah.org> (email).

Electronic Form Available

Do you prepare a lot of National Register of Historic Places nomination forms? If so, you may be interested in participating in a beta test of the National Register's new electronic forms software. Using a run-time version of Microsoft Access, it includes content edit checks and online help. The software is free and available at the National Register Information System web page under "FORMS" at <www.nr.nps.gov/nrishome.htm>.

Courses

Managing Change and Imagining Tomorrow: Cultural Strategies in the Communications Age is an interdisciplinary program for mid-career professionals that brings theoretical and practical perspectives to organizational change, communication, and the shaping of knowledge. The program combines distance learning through the internet with a two-week summer institute at the Museum of Anthropology. To receive a 1998 brochure and information on earning a Certificate in Museum Studies, contact Kersti Krug, Program Director, Museum of Anthropology, The University of British Columbia, 6393 NW Marine Drive, Vancouver, BC Canada V6T 1Z2; 604-822-8224; fax: 604-822-2974; email: <krug@unixg.ubc.ca>, or visit the

Museum's web site at <www.moa.ubc.ca/Mstudy/certif.html>.

The **National Preservation Institute** has published its 1998 schedule of seminars in historic preservation and cultural resource management. Course agendas, locations, and dates may be obtained by telephone: 703-765-0100; by email: <info@npi.org>; or by visiting their web site: <www.npi.org>.

The **American Association for State and Local History** announces its spring 1998 professional development workshops. The topics are "Dream Houses and Money Pit$: Issues in Historic House Museums" (March 26–28, St. Augustine, FL); "Interpretation and Community History" (April 1–15, Oxford, MA); "Interpretation On-Line" (April 30–May 2, Kalamazoo, MI); and "Making History with Your Community" (June 15–30, Oxford, MA). For more information, contact Deanna J. Kerrigan, telephone 615-255-2971; email: <history@aaslh.org>.

1998 and 1999 National Park Service Museum Management Program Courses

The National Archives and Records Administration, the National Register of Historic Places, and the Northeast Document Conservation Center, with funding from the National Park Service Cultural Resources Training Initiative, are offering a course, **The Information Ecosystem: Managing the Life Cycle of Information for Preservation and Access**, March 10-13, 1998. The course teaches managers how to effectively create, manage, adapt, and re-use information, particularly electronic information, in a project setting. It is designed for middle and upper managers of cultural and natural resources within federal and state government, non-profits, and corporations, who are responsible for supervising the creation, management, use, and/or adaptive re-use of information. For information, contact Gay Tracy, Northeast Document Conservation Center, 100 Brickstone Square, Andover, MA 01810-1010; tel: 508-470-1010; fax: 508-475-6021; web: <nedcc@world.std.com>; email: <Tracy@nedcc.org>.

The Northeast Document Conservation Center, with funding from the National Park Service Cultural Resources Training Initiative, is offering a course, **Preservation Reformatting in a Digital World**, in the fall 1998. This course teaches managers how to effectively plan and manage projects to reformat deteriorating or fragile architectural drawings and plans, documents, drawings, graphic prints, photographs (particularly cellulose nitrate and cellulose diacetate negatives), and related materials into microfilm, photographic prints, and digital format for preservation and access. It is designed for architects, archivists, curators, historians, interpreters, landscape architects, librarians, managers of cultural and natural resources, project managers, state historic preservation officers, and webmasters. For information, contact Gay Tracy, Northeast Document Conservation Center, 100 Brickstone Square, Andover, MA 01810-1010; tel: 508-470-1010; fax: 508-475-6021; web: <nedcc@world.std.com>; email: <Tracy@nedcc.org>.

The National Anthropology Archives, the Human Studies Film Archives, the Committee on the Preservation of the Anthropological Record, University of Nevada, the Northeast Document Conservation Center, with funding from the National Park Service Cultural Resources Training Initiative, are offering a course, **Preservation of Our Field Records Legacy at the Millennium: A Short Course for Anthropologists, Archeologists, and Ethnographers**, in late winter or early spring 1998. This course provides professional anthropologists with an overview of how to create, manage, and responsibly ensure that significant information from their field records is not lost to future scholars and peoples. The course describes basic preservation procedures for both documentation and associated objects; files management techniques; legal issues of ownership, privacy, publicity, and intellectual property; and basic procedures for ensuring the survival and future usefulness of this vital informational legacy. It is designed for anthropologists, archeologists, archivists, ethnographers, librarians, and tribal archivists. For information, contact Gay Tracy, Northeast Document Conservation Center, 100 Brickstone Square, Andover, MA 01810-1010; tel: 508-470-1010; fax: 508-475-6021; web: <nedcc@world.std.com>; email: <Tracy@nedcc.org>.

Meetings/Conferences

The Council on America's Military Past (CAMP) will hold its 32nd Annual Military History Conference May 6-10, 1998, in Lexington, Kentucky. Emphasis will be on the Opening of the West and on the military in the Old Northwest Territory, and conflicts from the French and Indian War through the Civil War, plus all other American and Canadian military history. For more information, call 703-912-6124, or fax: 703-912-5666.

The annual meeting of the Society for History in the Federal Government will be held on March 19 and 20, 1998, at Archives II, National Archives and Records Administration, College Park, Maryland. The theme of the meeting will be "Interpreting Federal History: Documents, Artifacts, and Structures." For more information, contact SHFG 1998 Program Committee, Society for History in the Federal Government, Box 14139, Ben Franklin Station, Washington, DC 20044-4139.

The 20th annual meeting of the Society for Historian of the Early American Republic (SHEAR) will take place at Harpers Ferry, West Virginia, July 16-19, 1998. The featured theme of the meeting will be "The Invention of American Nationalism(s)." For more information, contact Jack Rakove, Program Chair, Department of History, Stanford University, Stanford, CA 94305-2024; phone: 415-723-4514; fax 415-725-0597; email: <rackove@leland.stanford.edu>.

Museums and the Web: An International Conference, will be held in Toronto, April 21-26, 1998. Organized by Archives & Museum Information Network, the meeting is expected to bring together members of the museum and the WWW community. Further information about Museums and the Web is available from <www.archimuse.com/mw98>, or phone: 412-683-9775; fax: 412-683-7366.

The Southwest Oral History Association will hold its annual meeting on April 24-26, 1998 in Albuquerque, New Mexico. The theme is "The Oral Tradition: Preserving Our Heritage." The conference will focus on the tradition of oral history and the preservation of the life experience and will address issues of preservation in format, subject, significance, funding, marketing, publishing, and other areas of interest. For more information, contact Bradley Williams, Ninth Judicial Circuit Historical Society, 125 South Grand Avenue, Pasadena, California 91105; phone: 818-583-7018; fax: 818-795-0266.

The National Council on Public History will hold its 1998 Annual Meeting in Austin, Texas on April 15-19, 1998. The theme is "International, Multicultural, Interdisciplinary: Public History Policy and Practice." For further information, contact Carl Phagan and Kris Mitchell, Batelle Pantex, P.O. Box 30020, Building 12-2B, Amarillo, Texas 79120-0020; email: <kcmitche@pantex.com>.

The **Missouri Historical Society** and **Institute of Museum and Library Services** (IMLS) are collaborating on a national conference on the role of museums in communities. The conference, "Museums Partnering with Communities," will be held April 17-18, 1998, in St. Louis, Missouri. For more information, contact Deanna J. Kerrigan, phone: 615-255-2971; email: <kerrigand@mindspring.com>.

The **American Institute for Conservation of Historic and Artistic Works** (AIC) will hold its annual meeting on June 1-7, 1998, in Arlington Virginia. The theme is "Disaster Preparedness, Response and Recovery." The meeting will bring together a broad audience of conservators, museum professionals, and organizations such as FEMA, the American Red Cross, the Department of Defense, insurance providers, fire departments, and companies providing disaster response services. For more information, contact the AIC at 1717 K Street NW, Suite 301, Washington, DC 20006; phone: 202-452-9545; fax: 202-452-9328; email: <InfoAIC@aol.com>; web site: <http://palimpsest.stanford.edu/aic/>.

Technical Preservation Services, NPS, is co-sponsoring a conference on using historic preservation tax incentives to rehabilitate historic properties April 27–28, 1998, in San Francisco, California. "Tax Incentives for Developing Historic Properties" is intended for owners of historic property, non-profits, lenders, attorneys, architects, and government officials. Developers, bankers, NPS program managers, and IRS tax specialists will introduce effective strategies for historic property development. Call 202-343-1185 or email: brooks_prueher@nps.gov for more information.

The **Society for Commercial Archeology** (SCA) will hold its annual conference on October 21–24, 1998, in Chattanooga, Tennessee. The theme is "Drivin' the Dixie: Automobile Tourism in the South." Participants will tour the routes of the Dixie Highway in North Georgia and Tennessee and examine a broad range of Southern roadside architecture. For information, contact Jeffrey L. Durbin, 404-651-6546; email: <Jeff_Durbin@mail.dnr.state.ga.su>; web site: <www.sca-roadside.org>.

Survey

Stand and Be Counted!

Since 1994, the number of preservation commissions in America has grown from 1,836 to 2,225, a meaningful 16% increase. Because every preservation commission has a stake in what happens to America's cities, towns, and communities, the National Alliance of Preservation Commissions (NAPC), The National Conference of State Historic Preservation Officers (NCSHPO), and the National Trust are collaborating to update and expand the national census of local preservation commissions.

This local historic preservation commission census, otherwise known as the United States Preservation Commission Identification Project, first began in 1991. The initial phase of the project was to compile a list of all known historic preservation commissions in the country. By the end of Phase I, a total of 1,803 commissions were identified and placed in a computer database. The focus on commissions intensified with Phase II of the project, which collected information about the structure of local commissions, recognized some commonalities, and identified training needs.

This questionnaire, the third and most comprehensive phase of the project, will give us a sense of

how well local preservation commissions work. The NAPC staff developed the draft survey, which was peer reviewed by a diverse and representative group of 25 preservation practitioners. This version was then refined and presented for review at the 1997 National Preservation Conference in Santa Fe.With the help of the reviewers, we have taken this opportunity to significantly expand the survey. The primary goals of this survey are the following:

- update basic data on commission profiles, processes and procedures;
- ascertain the effectiveness of local commissions, (i.e., are old buildings being protected and are new buildings being well designed?);
- identify the major needs and concerns of local commissions;
- determine training needs of local commissions;
- gather information on how the Certified Local Government (CLG) grant funds are being used; and
- collect and compile local preservation ordinances and design guidelines for future analysis.

According to Pratt Cassity, Executive Director of the NAPC, commissions will receive their survey by mid-February. Cassity said, "the results of this survey will not only help us measure the demonstrable outcomes of local preservation, but it will also help commissions learn from one another and perhaps chart an improved future course."

Commissions that return completed surveys will receive a copy of *Takings Law in Plain English*, a publication of the National Trust for Historic Preservation. In addition, commissions will also receive a complimentary 6-month subscription to *The Alliance Review*, the bi-monthly publication of the NAPC.

Results of the survey will be posted on the National Park Service web page at <http://www2.cr.nps.gov/clg/USPCIP>.

Look for your survey in the mail. Remember, your community counts! If your commission does not receive a survey by March 1, 1998 please call Chris Cochran at the NAPC at 706/542-4731. You can also email the NAPC at NAPC@sed.uga.edu.

Corrections

We failed to identify Sande Anderson as an author of "Are We Missing the Boat?" *(CRM*, Vol. 20, No. 9); co-author was Linda Cook. Sande Anderson is the senior historian in the NPS Alaska Support Office.

We listed an incorrect credit for one of the maps used in "Los Adaes—An 18th-Century Capital of Texas in Northwestern Louisiana," by George Avery *(CRM*, Vol. 20, No. 11). The map on page 42 was adapted from Figure 4 of Timothy Perttula's 1992 book, *The Caddo Nation: Archaeological and Ethnohistoric Perspectives*, University of Texas Press, Austin.

Summer Employment

The **Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER)** is seeking applications from qualified individuals for summer employment documenting historic sites and structures of architectural and technological significance. Duties involve on-site field work and preparation of historical reports and measured and interpretive drawings for the HABS/HAER Collection at the Prints and Photographs Division of the Library of Congress. Projects last 12 weeks, beginning in May/June. Salaries start at approximately $4,500 for the summer, depending on levels of education, experience, and project location.

For more information, telephone: 202-343-9626/-9618; email: <robyn_brooks@nps.gov>; or visit the HABS/HAER web site: <http://www.cr.nps.gov/habshaer/jobcomp.htm>. Forms may be downloaded from the site.

The **United States Committee, International Council on Monuments and Sites** (US/ICOMOS) is seeking US-citizen graduate students or young professionals for paid internships in Australia, Croatia, Chile, France, Ghana, Great Britain, India, Lithuania, Poland, Russia, Slovak Republic, Spain, Transylvania, Turkey, and other countries in the summer of 1998. Participants work for public and private nonprofit 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. Applications are due no later than March 9, 1998.

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, phone: 202-842-1862, fax: 202-842-1861; web site: <www.icomos.org/usicomos>.

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