CRM

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

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

Aircraft As Cultural Resources

The Indiana Approach

Paul C. Diebold

Historic preservation, by its very nature, focuses on fixed, concrete resources. In the past decades, both the private and public sectors of the preservation community in the United States have become familiar with the documentation and preservation of many types of historic buildings and structures. Fragile and everchanging resources such as vernacular and designed landscapes are being inventoried and nominated to the National Register of Historic Places. Yet, with all our experience, the preservation community has had very little contact with the aviation community. No official, agreed upon standards for the evaluation and registration of aircraft exist, not to mention standards for restoration, or even uniform definitions for aircraft preservation terminology.[1] Can standard historic preservation procedures for survey and registration be applied to historic aircraft? The Indiana Division of Historic Preservation and Archaeology recently inaugurated a historic aircraft inventory and nomination program, culminating in the nomination of a B-17 bomber to the National Register of Historic Places. SHPOs or private non-profits interested in pursuing similar programs may benefit from both the successes and pitfalls encountered by the Indiana program.

Above: Boeing B-17G "Flying Fortress" No. 44-83690 was produced in 1945. The "G" model was the final and most sophisticated version of the B-17, distinguished by the twin-gunned "chin" turret. After nearly a decade of use in missile and nuclear weapons evaluation, 44-83690 was flown to Grissom AFB (then known as Bunker Hill AFB) in 1961 for static display. Visitors may see the plane without entering the base itself. Photo by Paul Diebold. Top Left: North American SNJ-5 N62724 soars over the cornfields of southern Indiana. A variant of the venerated AT-6 "Texan," this SNJ-5 was manufactured in 1943 and was used to train pilots in attack and carrier landing techniques at Alabama airfields. Photo courtesy Indiana Division of Historic Preservation and Archaeology.

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Oral History

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Aircraft as Cultural Resources

(continued from page 1)

Preservationists should be familiar with the nature of aircraft and aviation history before approaching them as historic resources. Aviation is a young, forward-looking science. Its emphasis is on new technology and safety issues. Unlike the maritime community, which has developed a respect for the past and deeply ingrained traditions, aviation has only recently begun to appreciate its roots. Indeed, interest in historic aircraft has grown dramatically in the past 20 years. The Smithsonian's Air and Space Museum is among the nation's most visited museums, and thousands flock to air shows to witness the thrill of authentic historic aircraft in operation. This unprecedented interest in aircraft sometimes has ironic results; the Alaska SHPO, for example, is under constant pressure to allow artifact recovery on its National Register-listed World War II aircraft crash sites, so that the spare parts can keep other warbirds airworthy.

Aircraft themselves are dissimilar to the majority of resources preservationists encounter. A plane is a mass-produced machine intended to safely transport people and cargo. Operating an aircraft means change. Interchangeable parts allow mechanisms to be replaced often. Engines are overhauled or replaced to insure safety standards are maintained. Fragile historic materials, such as canvas wing or fuselage coverings, can now be replaced with stronger synthetic fabrics. Granted the fragile nature of aircraft, and the facts of operating an aircraft over an extended period of time, evaluation of historic aircraft for integrity and significance is challenging.

WACO UPF-7 NC 32080 is based in a small central Indiana airfield. Built in 1941, it shows a typical WACO design. Tubular metal struts and interior eliminated the need for elaborate cross bracing wires seen on earlier biplanes. Photo by Jerry Brown.

Survey

The first step in Indiana's program was to produce an inventory of historic aircraft. Without benefit of Sanborn maps or atlases, the problem of mere identification seemed problematic. One could obtain a list of active airfields, and simply canvas each field for historic aircraft. While this might produce good results, it is labor intensive. With no additional staff available, and time at a premium, a less labor-intensive approach was needed. In Indiana, any aircraft, airworthy or not, must be registered with the Indiana Department of Transportation (INDOT) for tax purposes. With the cooperation of INDOT, the Division was able to obtain a list of all aircraft based in Indiana built prior to 1946. The most pertinent information was determined to be 1) civilian or military registration number, 2) make and model, 3) year of construction, 4) airworthy status, and 5) owner's name and address. Aviation museums and interested private non-profit groups, such as the local wing of the Confederate Air Force, put staff in direct contact with some aircraft missed by the computer check. Armed with this information, and a working knowledge of both civilian and military aircraft, staff waded through the data to locate planes which seemed to warrant further investigation. The decision to investigate was based on 1) significance of the type of aircraft, 2) rarity of the type of aircraft, and 3) airworthy status (hoping that airworthy planes would be better maintained and have greater owner interest and pride). Since staff time was limited, a letter was sent to these selected owners. Each letter requested a photograph, and detailed information about the use of the plane.[2] Using these relatively labor-free techniques, the Division was able to produce an inventory of historic aircraft somewhat comparable to its historic building inventory. Over 200 historic aircraft were located by the survey. About 100 requests were sent to specific owners, of which about 35 responses were received by the Division. In retrospect, the Division would have received more responses if better ties to the aviation community would have been established, perhaps through bulletins distributed to airfields, or other "PR" activities. If time would have allowed, arranging for inspections of all 200 aircraft would have been ideal, and would have provided more reliable data.

In general, owners who replied provided useful information about their planes and were cooperative. Types identified by the survey varied widely. Both civilian and military types have been located, and some, such as a handful of DC-3 aircraft, are still in commercial service. Most others are pampered toys, maintained solely for pleasure. Among the oldest type of aircraft based in Indiana is the WACO (pronounced wah-ko), manufactured in Troy, OH, from 1923 to 1947 by the Weaver Aircraft Company. Weaver was a small firm which sought to capitalize on the growing market for, and lack of, good aircraft available to the public shortly after

(Aircraft—continued on page 4)

(Aircraft—continued from page 3)

World War I. WACOs were status symbols. They share classic design characteristics of the period: biplane configuration, bulky yet streamlined fuselages, and curved tail surfaces. During World War II, the WACO UPF-7 was designated P-14 and used as a trainer. At least one Indiana WACO is known to have been used as part of the Civilian Pilot Training program during World War II. About 300 WACOs of various types still exist in the U.S., 20 of these are Indiana-based.

The survey also revealed several planes which might have Hoosier origins. Several Republic P-47D "Thunderbolts" are now based in Indiana, not too distant from the Evansville, Indiana, Republic Aviation plant in which they were likely produced. (The factory, now a Whirlpool appliance plant, still exists and was recorded in the Division's historic building survey.) Like most World War II single seat fighters, "Thunderbolts" are rare birds.

Significant design characteristics are often retained by military aircraft which never saw combat. North American P-51D 5NA "Mustang" No. 44-73436, for example, still retains its British designed Rolls-Royce "Merlin" power plant, as well as its "Laminar Flow" airfoil design. NACA (National Advisory Committee for Aeronautics, the precursor agency to NASA) scientists devised the airfoil which reduced drag by 50%, and the "Mustang" was the first practical application of this new airfoil type. This plane is based in northeast Indiana. Photo by Dean Cutshall.

Nomination

The Division hopes to focus special attention on intact examples of World War II aircraft through registration. Indiana is home to about 50 aircraft of various types which were trainer or combat planes. As a test case, the Division took the opportunity to prepare a National Register nomination for B-17G "Flying Fortress" No. 44-83690. The aircraft is on static display at Grissom Air Force Base (near Peru, IN) and is federally owned, so permission needed to be secured from the U.S. Air Force officials and the Federal Preservation Officer. Evaluation of the aircraft's National Register potential involved on-site inspection and research.

Related Historic Properties

The Boeing B-17 bomber was a truly remarkable aircraft. It was a four engine bomber, designed in 1934, first tested in 1935, and in production by December 7, 1941. After America's entry into World War II, the B-17 became the main aircraft used in American daylight bombing attacks on Germany until the end of the war. The history of this remarkable plane intersects with the history of several National Historic Landmarks and serves as a connecting link between these historic properties.

The Variable Density Wind Tunnel, Langley, Virginia (1921).

The success of the Wright Brothers airplane was followed by a technological backward slide by the American aircraft industry. British, French, and German designers soon surpassed the Wright Brothers and other American aircraft builders. By World War I the United States had slipped into a position of technological inferiority compared to the European designers.

To support their aircraft industry European designers built major wind tunnels to test new theories and to discover better methods of building aircraft. To regain for America the technological leadership in the field of aircraft design and manufacture, President Woodrow Wilson signed into law a bill establishing the National Advisory Committee for Aeronautics (NACA) March 3, 1915.

In June 1921 NACA's Executive Committee decided to leapfrog European wind tunnel technology and build a tunnel in which pressures could be varied. This concept was strongly advocated by Max Munk, a NACA technical assistant, who was familiar with European wind tunnel design from his days at Gottingen. The VDT, for the first time, placed in the hands of NACA engineers a research tool superior to that found anywhere else in the world. The VDT was able to predict flow characteristics of test aircraft models more accurately than any other tunnel then in existence. The VDT quickly established itself as a primary source for high quality aerodynamic data.

The result of this research led to the publication of NACA Technical Report 460 in which aerodynamic data for 78 related airfoil sections were presented. Information contained in this report eventually found its way into the design of the B-17 which quickly dominated the skies over Germany in World war II.

Full Scale Tunnel, Langley, Virginia (1931).

Although the Variable Density Tunnel gave NACA engineers confidence in scaling up test results from models, several research areas could be explored only with full-scale models or with actual aircraft. The VDT was limited when the aerodynamic characteristics of a complete airplane were desired because it was practically impossible to build a model of the required size that is a true reproduction of a complete airplane. This difficulty is increased by the requirement that the model withstand large forces.

Evaluation

The significance of this aircraft type is well known. The B-17 is probably the most widely recognized American plane of World War II. Designed in response to a 1935 competition held by the Army Air Corps, the B-17 met the requirement of long range, high speed, and high altitude performance specified by the Corps. Its four engine design was unusual for its time, and its ability to adsorb battle damage was legendary. Boeing engineers designed the B-17 so that adjacent ribs or stringers could provide support in the event of failure. This bomber type earned fame as the mainstay of the U.S. Army Air Force's "strategic daylight bombing" campaign in the European Theatre. Clearly, as a type, B-17s are historically significant.

Scott Thompson's *Final Cut*[3], a recent publication which includes information about each existing B-17, proved to be an invaluable resource. The Division was able to use this publication essentially as a survey of existing B-17s. Nominators of historic aircraft should be aware that similar publications exist for other popular historic aircraft types. This publication allowed the Division to assess the relative integrity and significance of 44-83690.

Staff felt that evaluation for this property should be done at the national level, since it generally had no specific connection to one location. Also, military planes such as 44-83690 were part of a national defense plan.[4] Historical association can be problematic for existing World War II aircraft. Both veteran and new, never used, planes were scrapped by the thousands, while a few others were sold or used for a variety of military uses. No B-17s were made after 1945, but only three of the 50 existing B-17s saw actual combat during the war. For this reason, it was felt that the plane was best evaluated for its importance as a representative example of a significant aircraft type and for its design characteristics under Criterion C. Further research about post war uses of B-17s brought important historical data to light. B-17s were used to evaluate new weapons systems during the late 1940s and 1950s. Manned B-17s were paired with drone (unmanned) B17s which were radio controlled from the manned plane. The drones were used as targets for America's new generation of missile weapons, including Nike, Bomarc, and Sidewinder systems. Testing helped perfect the Nike system, which became the nation's first line of defense against aircraft during the Cold War. Open nuclear tests also provided important research data in the 1950s and served as dramatic displays of American military might. Drone B17s were guided into nuclear blast clouds to measure radiation levels by remote means. 44-83690 was used in both capacities during the Cold War, and staff determined that enough contextual information existed to evaluate the plane for exceptional significance under Criterion A in the area of military history. The basis for evaluation of integrity used the seven standards used in National Register Bulletins 15 and 16A: location, design, setting, materials, workmanship, feeling, and association.[5] As preservationists are aware, these seven categories do not equally apply to all resources. In the case of historic aircraft, staff felt that the least important considerations were location, setting, feeling, and workmanship. Integrity of design was deemed most important. As a basic test of integrity, staff reasoned that any historic aircraft should A) have the majority of its airframe (the structure and skin of a plane, not inclusive of mechanical systems or power plant) and B) retain power plant(s) of the proper historic type. Retention of electrical

*(**Aircraft**—continued on page 7)*

Some of the questions that needed to be answered involved solving drag penalties due to external struts, surface gaps, air leaks, and engine cooling insulation. These questions could only be answered by using full-scale aircraft. Models simply would not work.

With funds appropriated before the start of the Depression, NACA was able to begin the building of a Full Scale Tunnel in 1929.

When completed in 1931, the significance of the Full Scale Tunnel was immediately apparent to NACA engineers. Drag tests in the tunnel indicated surprisingly large performance penalties from external struts and other exposed aircraft parts. This information had been suspected by NACA engineers for some time but with the completion of the Full Scale Tunnel the engineers now had the data needed to correct the problem. Soon a large procession of military aircraft, including the Boeing B-17, was dispatched to Langley for drag cleanup tests. Before and during World War II practically every high performance aircraft used by the United States was checked out at the Full Scale Tunnel. The tunnel operated 24 hours a day 7 days a week during the war performing drag cleanup tests for the military. For most of the war the Full Scale Tunnel was the only tunnel in the country and in the world capable of performing these tests. The importance of the tunnel was so evident that the United States built an even larger Full Scale Tunnel at the Ames Research Center in 1944.

The Opana Radar Site, Hawaii (1941).

In the early hours of the morning of December 7, 1941, two ordinary servicemen stationed at the Opana Radar Site in Hawaii used the new technology of radar to detect the approaching Japanese carrier aircraft. These men reported their findings to the temporary information center at Fort Shafter. Since this report came in after the designated watch time (4:00-7:00 a.m.), the information center staff had already gone to breakfast. The information officer had been on duty since 4:00 a.m., and this was only his second time at the Information Center. After receiving the Opana report, the information officer reasoned that the radar blip was a flight of Army B-17 bombers due in that morning. He therefore instructed the Opana Radar operations to disregard the information and "not to worry about it."

The Opana Station continued to plot the incoming Japanese planes until 7:40 a.m. when the contact was lost in the background interference as the planes approached Oahu. Both men then secured the Opana radar shortly before 8:00 a.m., and headed down the mountain for breakfast not realizing the implications of their discovery. The information officer was only partially correct. At 7:50 on the morning of December 7, 1941, a flight of Army B-17 aircraft did arrive at Pearl Harbor, only to be caught in the first wave of Japanese attack aircraft. America's preeminent bomber was now at war.

—Harry A. Butowsky

Cultural Resources Management and Aviation History

Kevin J. Foster

As the preceding article by Paul Diebold indicates, until recently, historical aviation sites and aircraft were largely overlooked by cultural resources management (CRM) professionals. This situation is changing. Early this year, the National Maritime Initiative of the National Park Service's History Division began a cooperative project with the U.S. Navy, acting on behalf of all of the military services, to help preserve what remains of aviation material culture.

The choice of the Maritime Initiative program to pioneer aviation CRM efforts in the National Park Service was not as strange as it might seem. Maritime resources were in much the same neglected state in 1985 when the Maritime Initiative was started, as aircraft are today. Since 1985, the Initiative compiled and published database inventories of various historic maritime resources; wrote National Register bulletins for lighthouses, ships and shipwrecks; studied over 140 such properties for nomination as National Historic Landmarks (NHLs); and published *The Secretary of the Interior's Preservation Standards for Large Historic Vessels.* Interestingly, the ship preservation standards proved to be nearly as useful to aircraft preservationists as they had been to ship restorers.

December 9, 1941 aerial view of Kaneohe Naval Air Station following the Japanese attack. Hangar No. 1, at top of photo, was burned out. The small structure immediately below it was later replaced with Hangar No. 2. Hangar No. 3 appears not to have been damaged. Hangar No. 4, at bottom of the photo, was still under construction. U.S. Navy photo courtesy National Archives.

The NPS's partner in aviation CRM work is the Naval Historical Center, which not only supports a wide-ranging historical research and publishing program, but is also responsible for the Navy museum system and management of U.S. Navy ship and aircraft wrecks worldwide. The Department of Defense's Legacy Program, recognizing the importance of including naval aviation in Navy history and preservation programs, funded this three-year cooperative program to address the needs of aviation preservation and archeology within the Navy. Many of the products of the cooperative effort will be useful to the other military services in preserving their aircraft and aviation sites as well.

The project is based on completing three primary elements; 1) a database inventory of all known submerged U.S. Navy ship and aircraft wrecks worldwide; 2) a National Register Bulletin, *Nominating Historical Aircraft and Aviation Facilities to the National Register of Historic Places*, and 3) a National Historic Landmark theme context study of the history of naval aviation.

The first element is to compile a global U.S. naval shipwreck and aircraft wreck site **inventory** and database designed to serve cultural resources management purposes. It is underway, using the existing National Maritime Initiative computer database format to record information. The project is merging existing database information on wreck sites compiled by the Initiative, with information from the Naval Historical Center, the National Oceanographic and Atmospheric Agency, the Coast Guard, State Historic Preservation Offices, and the Minerals Management Service. As time allows, the database will be expanded through primary and secondary research.

The Inventory is the first step toward proper cultural resources management of surviving submerged naval aircraft. Museums and collectors are particularly interested in fixed wing, lighter-than-air and rotary-wing aircraft. The craft have been the subject of intense searches and recovery efforts to obtain enough parts in good condition to allow the restoration and even return to flight condition of rare aircraft. Many aircraft have been collected from lake and ocean bottoms with little question of archeological values or ownership. The Navy

West end of Hangar No. 1, Naval Air Station, Lakehurst, NJ, August, 1969. Photo courtesy R.A. Hayes, U.S. Navy.

wishes to control these efforts and see that all due consideration is given to archeological research, care for potential human remains, and continued federal ownership of submerged aircraft.

The second element of the aviation CRM program is the National Register Bulletin, *Nominating Historic Aircraft and Aviation Facilities to the National Register of Historic Places.* Dr. Ann Millbrooke, an aviation historian and specialist in the history of the technology of flight, is researching, writing, gathering illustrations, and preparing this bulletin planned for publication in 1995.

The bulletin will provide the military services as well as the aviation and preservation communities with a guideline for evaluating the significance and integrity of historic aircraft and aviation facilities. This guideline is crucial to the evaluation of aviation properties within the national preservation context.

The third element is the *Naval Aviation Heritage National Historic Landmark Theme Study.* The Aviation Historical Branch of the Naval Historical Center is working with NPS to prepare a NHL theme study describing the development of U.S. naval aviation as illustrated by its surviving facilities, aircraft, and archeological sites. The theme study will include nominations of 12 to 15 properties of different types, including individual fixed wing, lighter than air, seaplane or rotary wing aircraft, crash sites, aviation support vessels, factories, airfields, testing centers and laboratories.

The study will serve as the basic framework for production of other NHL and National Register of Historic Places nominations for aviation. Sample nominations will provide a casebook on which to base future studies and can serve as a model for similar studies for other military services.

Kevin J. Foster is the Maritime Historian of the National Park Service.

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systems, armament, and other features may add to integrity of feeling.

After evaluation, staff agreed that B-17G 44-83690 met Criteria A and C, and that exceptional significance under criterion consideration G (less than 50 years of age) was justifiable for both the date of construction (1945) and for the plane's testing role (1951, and 1956-59). Presentation of this documentation in the nomination form followed the usual format, except that the description section was broken down into a specifications format. For example, the fuselage, wingspan and airfoil type, tail assembly, and performance characteristics were described by measurements and in writing. A separate paragraph described modifications and restoration activities, and the conclusion analyzed integrity using the seven National Register aspects of integrity. The statement of significance explained the importance of this aircraft type, and detailed how 44-83690 in particular was a good representative of this now rare type.

With acceptance of B-17G No. 44-83690 to the National Register of Historic Places on June 29, 1993, the Division's historic aircraft program came to fruition. The Division hopes that this nomination will serve as a model format for the nomination of other historically significant aircraft in Indiana, and in other states as well.

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1 Although no agreed-upon standards exist, TIGHAR (The International Group for Historic Aircraft Recovery), 2812 Fawkes Dr., Wilmington, DE 19808, has published a *Guide to Aviation Historic Preservation Terminology.* Developments in maritime preservation can be applicable to aviation; the National Park Service National Maritime Initiative has published *The Secretary of the Interior's Standards for Historic Vessel Preservation Projects* (July, 1990) and National Register Bulletin 20: *Nominating Historic Vessels and Shipwrecks to the National Register of Historic Places* (James P. Delgado and a National Park Service Maritime Task Force, 1985). Currently, the National Park Service is preparing a National Register Bulletin, *Nominating Aircraft and Aviation Facilities to the National Register of Historic Places.*

2 Flight logs are required to be maintained by the owner. Logs include flight and maintenance data, and have been mandatory since early aviation history. Copies of logs for military craft are maintained at central locations depending on the branch (Air Force, Navy, Marines) which used the plane.

3 Scott A. Thompson, *Final Cut: The Post-War B-17 Flying Fortress: The Survivors;* Pictoral Histories Publishing Co., Missoula Montana, 1990.

4 In some cases, nominations of aircraft for State or local significance may be appropriate. The Pilgrim 100 B aircraft in Dillingham, AK, for example, was listed on the National Register for its historic role in the development of aviation in Alaska. Pilgrim aircraft were a favorite among Alaskan bush pilots and "served as the workhorse of Alaskan aviation in the late 1930s and early 1940s."

5 National Register Bulletin 15: *How to Apply the National Register Criteria for Evaluation* and National Register Bulletin 16A: *How to Complete the National Register Registration Form.*

Paul C. Diebold is an architectural historian for the Indiana Division of Historic Preservation and Archaeology. Paul reviews National Register nominations, Part 1 applications, and historic building surveys. He initiated the historic aircraft inventory and nomination program in Indiana in 1991.

Civil War Sunken Ships

Legacy Resource Management Program

Marie Cottrell
Stephen R. James, Jr.

During the latter half of May 1993, investigations into the history and current condition of two sunken Civil War vessels were undertaken by the Navy. The ships, USS *Cumberland* and CSS *Florida*, whose remains lie in the James River off of Newport News (VA), played significant roles in major events during the Civil War. Because of their historic significance, the shipwrecks have been determined eligible for listing in the National Register of Historic Places. As the U.S. Navy retains stewardship over sunken naval vessels, the Navy applied for and received a grant through the Department of Defense Legacy Resource Management Program, a program established by Congress in 1991 to "promote, manage, research, and conserve any historical resources which exist on public lands, facilities, or property held by the Department of Defense."

The Legacy Grant, Project #348, was used to perform scientific underwater investigations of the wrecks in order to ascertain their current condition and to develop a comprehensive management plan in consultation with the Commonwealth of Virginia Department of Historic Resources for their long-term protection. Both wrecks were severely damaged prior to sinking; both were subject to salvage operations following the Civil War; both have been looted by illegal collectors; and both have been adversely affected by virtue of their location in a turbulent as well as busy commercial/industrial shipping lane. All these factors affect the current condition of the vessels and any long-term management goals. Panamerican Consultants Incorporated of Tuscaloosa, AL, was retained under contract with the U.S. Army Corps of Engineers, Mobile District to complete the necessary archival research and underwater reconnaissance to develop a series of alternatives for the preservation of data contained in the vessels.

CSS *Virginia* (ex-USS *Merrimack*) rams the sailing ship USS *Cumberland* on March 8, 1862. This action marked the end of the wooden warship as a fighting instrument. Courtesy Hampton Roads Naval Museum.

Historical Background

The CSS *Florida*, constructed in England as a commerce raider, was commissioned by the Confederate Navy in 1862. Following a two-year stint as one of the three most successful Confederate raiders, the ship was rammed by the USS *Wachusett* while anchored in the port of Bahia, Brazil. Failing to sink *Florida*, *Wachusett* towed *Florida* to Hampton Roads where the vessel sank in the James River under mysterious circumstances on November 28, 1864.

The wreck of the CSS *Florida* is significant for a number of historical reasons, including its representation of a segment of the Civil War that is not well known. While the land-based history of the Civil War is well documented, the battles on the seas were equally important in determining the course and duration of the war. Besides disrupting trade between the northern states and Europe, the Confederate raiders were able to capture merchant ships with cargos worth millions of dollars. This form of economic warfare reached beyond the battlefield and into the heart of the Union. Additionally, some of the cargos were sold to finance the Confederate war effort. *Florida* also offers a unique opportunity to examine technological change as it relates to the early use of steam propulsion in naval sailing vessels.

Florida used both sail and steam power and was fitted with a retractable screw propeller. The ship's design was developed for a specialized need during the Civil War, primarily speed and maneuverability in pursuit of northern merchant shipping. It is, therefore, an example of a style of ship that was representative of the technological changes precipitated by the War.

The USS *Cumberland*, on the other hand, was a full shipped-rigged sailing sloop, built at the Boston Navy Yard and launched in 1842. For the next 20 years, *Cumberland* served in the Mediterranean, the Gulf of Mexico, and along the African Coast. In 1861, *Cumberland* was in Gosport Navy Shipyard, and unlike the USS *Merrimack* which was burned and scuttled, she was evacuated to Fort Monroe. As Fort Monroe served as the staging area for blockading southern ports, *Cumberland* was deployed to Hatteras Inlet on the North Carolina coast prior to participating in the James River blockade.

USS *Cumberland* (1842-1862), docked at the Portsmouth Navy Yard, New Hampshire, in 1860. In 1862 *Cumberland* was sunk by the CSS *Virginia* in Hampton Roads. This action marked the end of the wooden warship as a fighting instrument. Courtesy U.S. Navy.

The USS *Merrimack* was raised by the Confederate Navy at Gosport Navy Shipyard and refitted as an Ironclad. *Merrimack,* renamed the CSS *Virginia,* sailed forth on March 8, 1862, to clear the Union blockade. The USS *Cumberland* and the USS *Congress* were located off of Newport News, when the CSS *Virginia* entered the James River. *Virginia,* after exchanging fire with *Congress,* steamed toward *Cumberland* and rammed her under the starboard forechains.

The force of the engagement was severe enough to break off the six-foot ram of Virginia and open a hole in the side of *Cumberland* "wide enough to drive in a horse cart."

Cumberland rapidly sank with over 100 men aboard. The next day, the CSS *Virginia* was engaged in battle by the USS *Monitor* in the famous "battle of the ironclads." It was believed by some that had it not been for the damage sustained by *Virginia* in her encounter with *Cumberland,* including the loss of her ram, she would have been successful in her battle with *Monitor.* Had *Virginia* been successful, the course of the war may have changed or its resolution may have been different. The significance of *Cumberland* rests in its role in a very famous event during the Civil War, an event that in some ways determined the outcome of the war.

Current Investigations

Underwater archeological investigations were undertaken between May 22 and 28, 1993. A number of successful dives, during which mapping, video documentation, and initial wreck site assessments were completed, also indicated that continuing damage has been sustained by both vessels. The damage noted was the result of intense maritime traffic, anchoring of vessels, fishing activities, as well as the natural erosional properties of strong currents and damaging marine organisms.

The current archeological investigations indicated that while the vessels have been subject to damaging forces of varying degree, the sites, long hidden by the dark and uninviting waters of the James River, still retain a wealth of archeological and historical information. The lower hull of *Florida,* all that remains of this once sleek and dreaded raider, now lies mostly buried in the mud and sand of the river bottom. Large pieces of steam machinery, and her oak ribs which project upward from the river bottom, are evidence that a major portion of the vessel along with artifacts representing shipboard life and the war she was engaged in, lie intact within and around her mostly disintegrated hull.

Similar to *Florida,* the remains of *Cumberland* lie mostly covered just a few hundred feet away. Unlike her lesser-known counterpart, *Cumberland* was heavily salvaged, with explosives employed to gain access to her hull. She, therefore, lies broken and scattered along the bottom, with large pieces of the vessel, such as hull sides and rigging components, projecting from the sands.

The results of the archival research and field investigations will be interpreted over the next few months and recommendations for the long-term management of these historic wrecks will be forthcoming.

CSS *Florida* (1862-1864). This Confederate raider, built in England, terrorized Union shipping for two years before it was sunk in Hampton Roads. Drawing by Clary Ray. Courtesy U.S. Navy.

Marie Cottrell is an archeologist with the U.S. Navy Atlantic Facilities Engineering Command.

Stephen James is with Pan American Consultants Inc.

Rethinking Labor History

The West Virginia/ Virginia Coal Mining Industry

Harry A. Butowsky

After several years of planning, the National Park Service (NPS) has now begun the *Labor History National Historic Landmark Theme Study*. This study will combine the highest standards of historical scholarship with the practices of the historic preservation community to preserve and interpret for the American people the rich and culturally diverse heritage of labor in America. (See *CRM* Vol. 15, No. 5, 1992, and Vol. 16, No. 5, 1993) The labor history theme study is intended to serve as a vehicle through which government, the private sector, organized labor, the academic community, and other interested parties can cooperate to recover, interpret, and preserve the key sites in American labor history in its fullest variety. This history encompasses the entire lifespan of the nation since the founding of America and provides a window on America's past that is largely unacknowledged by the historic preservation community.

There are many facets to this history that are now under study by the NPS. These facets touch all areas of our history and impact every region and state. The labor history theme study has the ability to provide links between seemingly disconnected parts of American history and to bring into focus subjects that have been overlooked by the more traditional studies. Sites associated with the theme study may not have the individual and immediate recognition of national significance associated with properties such as the USS Arizona Memorial, Independence National Historical Park, Women's Rights National Historical Park, or the Brown v. Board of Education National Historic Site, but they are the glue of American history and have the capability to bring into focus important parts of our history associated with the working men and women of this nation.

Pocahontas Historic District, Tazewell Co., VA.

The Labor History Theme Study: An Update

In August 1993 the National Park Service selected Dr. James R. Grossman from the Newberry Library in Chicago, IL, to prepare the Labor National Historic Landmark Theme Study.

Dr. Harry A. Butowsky of the History Division of the Washington Office of the National Park Service and Dr. Martin Blatt from Lowell National Historical Park, MA, will monitor the implementation of the labor theme study cooperative agreement. Any questions concerning the labor theme study should be addressed to Dr. Butowsky at the following address:

National Park Service
History Division-418
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The West Virginia/Virginia Coal Mining Industry

Recent issues raised concerning the preservation of the historic resources associated with the coal mining industry in West Virginia and Virginia illustrate these issues. While the most immediate question now faced by the historic preservation community in West Virginia and Virginia involves reaching an agreement concerning the best methods and techniques to preserve these resources, other issues regarding the proper role of federal, state, and local governments, private preservation organizations, the coal mining industry, the coal miners, the United Mines Workers of America (UNMA), and other interested parties must also be addressed.

The way these questions are resolved will determine what we as Americans believe is important about our history and culture and how much time and resources we are willing to commit to preserve this heritage. Hopefully the resolution of this question will provide a positive course of action that will generate jobs, protect the environment and preserve the traditions of local pride and independence associated with the coal mining industry.

The Present Condition

The glory days of coal are now gone. At one time, prosperous coal company towns dotted the landscape of Virginia and West Virginia. These coal company towns now exist on the edge of extinction. The economic base (coal) has diminished and no one industry has replaced it. Announcements concerning the closing of additional mines continue to make local headlines. The economic repercussions associated with the continued slide in the coal mining industry seem to go unnoticed by the nation at large while the people suffer and endure. The history of the men and women who worked in the coal mines and supporting industries is in danger of being lost to the national memory.

The labor history theme study will assist in the documentation of this proud history that reflects the record of

the Industrial Revolution that brought America to the heights as the world's preeminent industrial power of the 20th century. The efficient mining of coal and the cheap power this resource provided for American industry formed the foundation of America's climb to greatness as a world industrial power. This story is important and needs to be told. Through the preservation of selected sites the wide and diverse themes of this story can be interpreted to the American people. These interpretive themes can be summarized as follows:

Industrial History

Paramount in the region's economic history, the coal industry has been of critical importance in the development of the national industrial economy. Historically, West Virginia and Virginia coal has been widely considered as unsurpassed in quality. Some of its seams are the best in the world. West Virginia coal fed the boilers of the nation's trains, factories, fleets, and power plants. As a processed fuel (coke) it helped satisfy the enormous appetites of the nation's iron furnaces. West Virginia coal was the basis for the tremendous growth of the American economy in the 20th century, and played a critical role in sustaining America's "arsenal of democracy" in wartime.

Union History

The West Virginia and Virginia coal fields also illustrate the struggle of American workers to secure the right to be represented in a union and to have some control over their working conditions.

The historic role of the United Mine Workers of America (UMWA) for example, has been to unite the miners into one body with a common set of goals and beliefs. This, however, took years of struggle, since the introduction of the union was adamantly opposed by the coal operators. The low wage structure was their competitive advantage in the dog-eat-dog regional competition in the 1910s and 1920s. They fought the UMWA with all the weapons they could garner. The UMWA, with its base of strength in the northern fields, realized that it was threatened with extinction if the non-union mines of West Virginia continued to outproduce and steal the markets of the union mines. Therefore, the UMWA concentrated all its energies on organizing West Virginia. It was no surprise when West Virginia became a battlefield in the early years of this century. Throughout the mine wars, there were many bastions of non-union strength which remained unorganized until 1933 with the passage of the National Recovery Act. Labor contracts signed by the mine owners and the UMWA established a standard for fair wages and decent working conditions that impacted industries far beyond the coal fields of West Virginia and Virginia.

Matewan, Mingo Co., WV.

Ethnic History

In many ways the ethnic history of the coal mining fields of southern West Virginia/Virginia is a microcosm of the ethnic history of the United States. These coal fields were scarcely populated before the coming of coal. The small population was inadequate to serve the needs of the labor-hungry coal industry. Coal operators were forced to recruit labor from three sources: white Americans from older coal regions, black Americans from the south, especially Virginia and North Carolina, and immigrants from Southern and Southeastern Europe. Many coal companies became and remained active in recruiting labor, sending agents to New York City to attract the rapidly growing influx of European immigrants including Italians, Hungarians, Poles, Russians, Slavs and Rumanians.

Social History—The Company Town

The company town was the most important institution in the coal fields of southern West Virginia. Since most mines were opened in virtually unsettled areas, there was little existing housing for the influx of laborers. Housing was a necessity, and the coal operators were the only parties in the region with the wherewithal to build it. The location of the company town was determined, not by considerations of health or community life, but by the proximity to the mine outcrop. The facilities for mining, the mine opening and tipple, were built first. Next, consideration was given to the location of railroad siding. Finally, in the remaining space, whether it was valley floor or hillside, the town was laid-out and constructed.

The social history of the typical coal company town is illustrative of the status of American race relations of the time. The different racial groups were segregated, with the native whites occupying the choicest dwellings near the tipple, the foreigners in those on the fringes of the settlement, and the blacks in houses that were often separated from the main cluster. Although segregation did not apply inside the mine, there was a hierarchy of occupations. The majority of native whites held the higher paying and more authoritarian positions, such as superintendent, foreman, fire boss; they most often operated the machinery. Some whites were also coal loaders, the lowest occupational category. The foreign born were on the second echelon of the occupational ladder, holding some machine jobs and machine helper jobs and being loaders. Blacks were the lowest on the occupational ladder, rarely having machine or machine helper jobs, and almost always being coal loaders.

*(**Coal**—continued on page 12)*

(Coal—continued from page 11)

Information brochure.

Technology

Another important theme that is illustrated by these resources concerns the role of technology in the industrial revolution. When the first coal mines in southern West Virginia were started in the 1880s it took only modest capital investment of a few thousand dollars. Nearly all of the early mines were drift mines, so expensive excavation equipment or hoists were not required. The operator had to provide little more than housing and a store for miners, a simple wooden tipple, mules, and some light track. No power machinery was used, and the miners supplied their own picks, shovels, and tamping bars. The small capital outlay necessary for opening made it easy for the small operator to enter the industry: a situation which created a highly competitive industry with a large number of firms, and because it encouraged production, ultimately led to the overexpansion of the industry.

The evolution of the mining industry in this century was marked by the disappearance of the small-time and indigenous operators. Large corporations soon dominated the industry and introduced technological innovations, such as loading machines, necessary to increase output per worker and changed the industry forever. While technology helped to make the industry more cost effective the loss of good paying union jobs was severe.

Local History

When the coal industry began its "boom" in the southern coal fields, the number of mining jobs increased dramatically. However, with the exception of the coke industry, it generated very few manufacturing jobs. Most of these manufacturing jobs were in the coke industry. This meant that the economy of the southern West Virginia and Virginia coal fields was built on a narrow base of resource extraction, rather than manufacturing. Because the coal lands and major coal companies were absentee owned, there was little in the way of profits from mining that could be re-invested in other industries. This dependence upon coal placed the region at the mercy of the national coal market, a situation which had harmful consequences not only for the coal industry, itself, but also for the development of housing and infrastructure in the region. The decline of coal after World War II illustrates the dangers of depending on the extraction of only one resource as the basis for a regional economy. As the industry of America matured, the towns and communities in the coal fields failed to change. This inability to change led to the loss of jobs and the devastation of the population and economic infrastructure of the West Virginia and Virginia coal fields. The lesson is clear. The economic health and preeminence of any community is not assured for all time. Change and evolution are necessary for economic survival.

Summary

The history of coal and of the men and women who worked in the mines is a consequential story that should generate self-esteem in these communities and pride for the nation. Coal was central to the development of the industrial might of the United States. The struggle of the coal miners for union recognition, decent wages, and safe working conditions was reflective of the desire of the American worker for social justice, equality, and economic opportunity. The men and women who came to the coal fields of West Virginia and Virginia were seeking a part of the American dream. They wanted high paying jobs and the opportunity to work and support their families. The coal mines gave them this opportunity. In the struggle to unionize they changed the industry and redefined the American dream.

The history of coal also illustrates an important ecological lesson. Coal, an important resource that once fueled the Industrial Revolution in America, is now used primarily as the underpinning of the American chemical industry. Coal is a natural resource of incomparable worth. Coal and the people who worked in the mines are resources that are now being recycled to support the continuing evolution of the American Industrial Revolution. We may no longer burn large amounts of coal for fuel, but we do use coal as a chemical resource that forms the basis for many of our present-day industrial activities. Coal is part of our future. This story needs to be told to this generation of Americans.

Through the implementation of the Labor History National Historic Landmark Theme Study Congress intended that concerned interested groups working with the National Park Service should begin discussions with leaders from local communities to develop planning strategies to assist these communities in the preservation and interpretation of their locally based but nationally significant labor history resources. It is the intention of the NPS to see that this is done in a manner that will acknowledge the national significance of the labor history inherent in these sites and respect other issues involving local pride, and the nature of our federal and state form of government. The resources associated with the coal mining industry in West Virginia and Virginia offer an insight as to what is possible. The challenges are great but rewards resulting from the preservation and interpretation of the coal mining heritage sites in West Virginia and Virginia are worth the effort.

Harry A. Butowsky is a historian in the History Division of the National Park Service.

PA SHPO Inventories French & Indian War Sites

Bruce D. Bomberger

In 1754, French seizure of the forks of the Ohio River, where Pittsburgh now stands, initiated a decade of open conflict between Britain and France in North America. Known as an American or colonial phase of the Seven Years' War in Europe, and the French and Indian War in America, it is most properly understood as "the Great War for the Empire." The struggle between European colonizing powers became global in scope, and the eventual outcome had a profound historical impact in many places in the world, including Pennsylvania.

British Major General Edward Braddock's difficult overland campaign to take the Forks from the French in 1755 ended prematurely in a catastrophic ambush which left the entire Pennsylvania frontier physically and psychologically unprotected. The immediate consequences for Pennsylvania were that the Indian allies of the French swiftly redressed the settlers' unjust usurpation of their lands. A bountiful frontier became a theater of terror and desperation. Bloody raids against settlers along the southern valleys and foothills of the Appalachian Mountains sent a panicked exodus of families fleeing to more settled areas east of the Susquehanna River and south of the mountain passes. Displaced angry westerners demanded assistance from the colonial government in Philadelphia, dividing and at length breaking the Quaker oligarchy which had long controlled the government. In the meantime, families on the outskirts of the contracting frontier were left to depend upon their own resources, buoyed only by granting of official commissions to their leaders and occasional provision of swivel guns and gunpowder, until a provincial system of forts was authorized and built.

Trace of Forbes Road, near Fort Dewart. Photo by the author.

British government leader William Pitt's commitment to take and secure the Forks of the Ohio had long-term consequences for Pennsylvania. General John Forbes's successful military road campaign of 1758 and Colonel Henry Bouquet's repulse of Chief Pontiac's Rebellion in 1763 ended French and Native American competition with Pennsylvania settlers for the Trans-Appalachian Region and thereby, as well, dependence upon the British government for protection. Also, Forbes Road was a more direct western route than Braddock's, and it fostered predominant settlement of the region by Pennsylvanians rather than by Virginians. Forbes Road served until the Early National Period as the only westward route from central to western PA for the military, packhorse traders, and migrating settlers. It was used as the base route for the Pennsylvania Road, authorized by the State Assembly in 1785, and completed 1789-1790. Both Forbes's and Braddock's Roads were important after the war to the early transportation and settlement patterns of western Pennsylvania and the developing nation beyond.

The physical legacy of the war in Pennsylvania consisted of French and Virginia-built forts and trading centers; privately-fortified Pennsylvania farmsteads, mills, and meeting houses; provincial forts; British camps, redoubts, and engineer-designed forts erected to cut and maintain the road to the Forks; and the roadbeds themselves of Braddock's and Forbes's campaigns. Although scholars had researched and written about the defense of the Pennsylvania frontier and traced the routes of the military roads, no systematic statewide inventory and mapping of French and Indian War-related sites had been attempted since a study commissioned by the Pennsylvania State Legislature in the late-19th century.

In September 1989, the National Park Service awarded the Pennsylvania Historical and Museum Commission's Bureau for Historic Preservation (the "BHP," Pennsylvania's State Historic Preservation Office) a grant to conduct a special study on French and Indian War resources, with special emphasis upon Braddock's and Forbes's Roads. In 1990-1992, Dr. Louis Waddell, a French and Indian War era scholar with the Pennsylvania Historical and Museum Commission, prepared a historical context with annotated bibliography for the BHP. This context was used as a principal document for the identification and evaluation of historic resources.

The BHP then drafted a preliminary survey methodology for the identification and evaluation of historic resources, including a universe of anticipated property types: 1) military engagement and fortification sites, 2) military road segments and 3) buildings or standing structures related to the conflict. The preliminary methodology proposed secondary source synthesis, site

*(**Inventory**—continued on page 14)*

(Inventory—continued from page 13)

mapping, and limited field survey. The BHP proposed to map as many sites as possible on USGS 7.5 minute series topographical maps. This methodology also proposed a priority index for choosing a small number of sites from the anticipated universe of sites for in-depth survey and evaluation.

When the BHP began to research and map sites in spring 1992, several facts became apparent. The few extant buildings and standing structures with documentable relevance to the conflict tended to have been long-known, well-researched, and already effectively marked, commemorated, or interpreted. The archeological locations of documented military sites, were, on the other hand, numerous, but data on their locations was not readily accessible, precluding their identification and protection under state and national historic preservation legislation. Although some military sites such as Fort Ligonier, in Westmoreland County, had been carefully excavated, reconstructed, and interpreted to the public, other sites were unmarked or had been recently destroyed by land development or strip mining.

Based upon preliminary mapping, many of the sites appeared to have good potential for archeological integrity. The level of data and number of artifacts recovered at Ligonier and other excavations suggested that, under ideal circumstances, French and Indian War period fortification sites had the potential to yield considerable information. Based upon the quantity of sites, the BHP's need for a concise reference document to categorize and provide context for any given site, and the desire to have a readily amendable medium, the BHP decided to develop a computerized inventory.

Using the "Table" function of WordPerfect software (version 5.1), the BHP inventoried a total of 106 sites. The BHP created a separate document or running chart for each historical group who had established the military sites, i.e., "French Forts," "Virginia Forts," "Private Forts," "Provincial Forts" and "British Forts." Broken down by chart, this total included: 24 British forts and related military sites, 4 French forts, 43 private forts, 31 provincial forts and 4 Virginia forts. On each chart the BHP used the following column format of four data categories: 1) fort or site name and page references in principal secondary sources, 2) descriptive notes, 3) site location, and 4) status of the site in terms of archeological excavation, commemoration, reconstruction, or physical disruption of the site.

Through the synthesis of secondary source material the BHP was able to locate over 60% of the total of 106 sites on USGS maps. Broken down by chart, this amounted to 21 of the 24 British sites, 3 of the 4 French forts, 21 of the 43 private forts, 24 of the 31 provincial forts and 1 of the 4 Virginia forts.

Focusing on Braddock's and Forbes's Roads, the most impressive military road segment that the BHP identified was a four- to five-mile segment of the Forbes Road located in the southwest central part of the state within Bedford and Somerset counties. This segment includes the strategic mountain pass "Rhor's Gap," the clear trace of a deeply-worn road path stretching for over four miles, the surviving earth and stone ramparts of the redoubt "Fort Dewart," and the site of a military encampment.

PROVINCIAL FORTS	NOTES	LOCATION	STATUS
*Page reference in above sources	*Description	*Municipality or township & County; where possible t o determine approx location, 7.5 minute quad map name is given	*May include: National Register listing; site marker; in-depth studies performed; excavation performed; potential for archaeological integrity; etc.
The Supply Act of 11/55 authorized a provincial defense system. It called for a defense fund administered by 7 commissioners which could be used to pay and maintain troops, & to build and garrison forts. The commissioners named by the act were James Hamilton & John Mifflin (members of the Governor's Council) & Isaac Norris, Benjamin Franklin, Joseph Fox, John Hughes, & Evan Morgan (members of the Assembly; see Hunter p. 185, 198.) The following 4 entries, located in original Northampton County were forts planned by the Commission and built north of the Blue Mountain.			
Fort Allen (Hunter pp. 233-259; Montgomery vol. 1, pp. 184-224; Stotz, Outposts, pp. 106-107.)	Built 1/56; garrisoned by provincials until 1761. Stockade 125 x 50 feet containing 3 houses, a well and 2 swivel guns. See copy of Ben Franklin's plan.	Weissport, Carbon Co. See quad Lehighton & attached copies of contemporary woodcut and fort plan.	PHMC markers for Ft Allen (Rte 209) and its well (opposite the fort) in Weissport. Built under Ben Franklin's immediate supervision; Gov. Morris considered it one of the 3 most important posts E of the Susquehanna. Served as a base for Indian negotiations.

Divergent road traces. Photo by the author.

While there were other Forbes Road fortifications that were larger than Fort Dewart, and may still possess archeological integrity, no other such site retains as much above-ground integrity. The features and overall integrity of the Rhor's Gap/ Fort Dewart segment appear to make it eligible for the National Register. Pivotal to this assessment is the uncompromised natural setting and strategic historic value of Rhor's Gap, and the unique survival of the Fort Dewart ramparts, which, together with the roadbed, constitute a considerable resource. In terms of its visible integrity and strategic importance, The Rhor's Gap/Fort Dewart segment of Forbes Road ranks as one of the two or three most significant surviving portions of the entire route.

The products of the overall French and Indian War survey will enable the first systematic approach to the preservation of Pennsylvania's French and Indian War resources. The BHP mapped resource locations directly on its archeological resource maps, giving most of these potential sites environmental review protection for the first time, and helping to fulfill an important gap in the BHP's responsibilities under state and national historic preservation legislation. Finally, use of the computer medium grants flexibility to efficiently update resource chart entries without having to recreate the entire survey document, making it a living survey inventory through ongoing entry of new data.

For archeologists, the survey and inventory should be useful in seeking funding for site testing and excavation. Such funding is scarce, and the application process to private foundations is highly competitive. Use of the survey, inventory, and mapping of fort sites should enhance and expedite the preparation of grant applications. The BHP hopes it will be especially helpful in demonstrating context and formulating research questions. The fort charts show at a glance where specific fort references can be found in principal secondary works. The charts and cross-referenced maps can be used to quickly quantify the types of forts about which the least is known, or which stand the highest probability for archeological integrity. The survey lends itself to prioritizing archeological testing and excavation.

Despite the wealth of data synthesized in the survey, its shortcomings need to be recognized. The map locations which the BHP indicated for sites should be considered approximate and as starting points for further investigation, planning, and protection. In the principal use for the survey maps, conducting historical and cultural impact reviews under state and federal preservation regulations, the sites indicated should in most instances be considered "high probability areas." In the past, Pennsylvania Historical and Museum Commission archeologists have had mixed success in finding exact locations for some forts in the field, even with the combined tools of land survey records and contemporary descriptions, coupled with surface collection, ground-penetrating magnetic survey and deep subsurface testing.

Nevertheless, the survey will be an important preservation planning tool because of the context and systematic planning approach it has provided for the fragile resources from this highly significant and formative period of history. The BHP thanks the National Park Service for its support for the project, especially Katherine Stevenson and Randall Cooley for their involvement. The BHP welcomes inquiries about the project and the sharing of information with other states and public agencies.

Bruce Bomberger is a preservation specialist at the Bureau for Historic Preservation, Pennsylvania Historical and Museum Commission in Harrisburg, PA. His work primarily involves historic architectural integrity assessments, review of historical rehabilitation, and writing industrial history contexts. He has co-authored with William Sisson *Made in Pennsylvania: An Overview History of the Major Industries of the Commonwealth*, and written Preservation Brief 26 for the National Park Service, The Preservation and Repair of Historic Log Buildings. He has also inventoried data on French & Indian War fortifications throughout Pennsylvania, and, in an ongoing project, is co-authoring a monograph on the state's iron and steel-making history.

PAST Program Is Present!

Susan Escherich

The new PAST (Preservation and Skills Training) program has gotten underway with the first group training session held in Hagerstown, Maryland on July 20-28, 1993. PAST was approved by the NPS regional directors in July of 1992, as a way of improving stewardship of historic buildings and structures in the parks. The two-year program offers individualized training in historic preservation and historic craft skills to maintenance workers who deal with these buildings on a day to day basis. The goal is to prevent further deterioration by carrying out maintenance that is sensitive to the historic character of the buildings and structures. As the skills of the maintenance force improve, so will the ability of the NPS to arrest our growing preservation backlog. Eventually, at least one maintenance employee trained in historic preservation should be available for each park with historic resources; each of these trainees will also be able to pass on his or her skills to other employees, reinforcing the knowledge of and appreciation for historic resources.

Eleven excellent mentors and twenty highly motivated trainees were selected for the first class from those recommended by their supervisors. All of the mentors have been acclaimed for their skill in carpentry or masonry and for their commitment to historic preservation. Most have had experience either teaching one-on-one or in groups. Mentors for the pilot 1993-1995 class include two masons and eight carpenters from five parks and five regional offices. The twenty trainees, chosen from 75 names submitted by their regions, include maintenance workers in wage grades 4-9 in addition to a WL 6 and a GS 7. There are four women trainees and one woman mentor. Selection was based on the needs of the parks and regions as well as on the interest and qualifications of the applicants.

Trainees' supervisors have committed to allowing the trainees to work on projects in their parks which will let them learn and practice historic craft skills and techniques. Mentors will be visiting and supervising the trainees approximately two days during each of the ten months of each year when there is no group training. As the trainees' abilities expand, it is hoped that they will be assigned to work on historic structures as much as feasible within their overall job context. This will allow the parks to gain maximum benefit from the new program.

Trainees and mentors will be sent to one or two week group training sessions in January and July during each two year cycle. The first course stressed historic preservation approaches to maintenance. Subsequent courses will focus on carpentry, masonry and painting, so that all students will have basic training in these skills from an historic craft perspective. Their one-on-one training with the mentors will focus on carpentry or masonry, depending upon what they selected when they applied. In addition to the benefits to the parks, PAST provides an exciting chance to upgrade our maintenance workers' skills and career opportunities.

Who are the PAST Mentors?

Jake Barrow, Supervisory Exhibits Specialist, Division of Conservation, Southwest Regional Office. Jake has been a carpenter for 23 years, 13 of them with the NPS. He also has taken stone conservation courses in Venice and has consulted on the conservation of the Lincoln and Jefferson memorials in Washington. One of Jake's recent projects was the conservation of the stone column at Mission San Jose in San Antonio Missions NHP which included consolidation and reattachment of deteriorating sandstone. Jake appreciates working with the NPS because of the diversity of the challenge: he says he works on projects that would never be available in the private sector. In the future, Jake looks forward to accomplishing an 18th century plaster conservation project at San Antonio Missions, developing a long term conservation program for a structure at Fort Davis NHS, and, over the long term, to developing a field architectural fabric conservation program in the Southwest Region. He will be mentoring Michael McNerney at Bent's Old Fort in Colorado, and Pamela Meck in Walnut Canyon National Monument in Arizona.

Dan Brown, Carpenter, Golden Gate National Recreation Area. Dan Brown, whose hometown is San Francisco, has been with the NPS 14 years, working first at Point Reyes and then at Golden Gate. Dan's most interesting projects in the past have been Williamsport Training Center projects at Morganroth Cabin in Olympic National Park and at Empire Ranch outside Tucson, Arizona. Dan would like to become part of a preservation team for the Western Region some day. He volunteered to be a mentor not only to share his knowledge but also to pass on his enthusiasm for preservation. Dan will be mentoring Charles Schultheis, who also works at Golden Gate, and Doug Cap from Chiricahua National Monument in Arizona.

Barry Caldwell, Exhibit Specialist, Historic Architecture Division, Southeast Regional Office. Barry, who specializes in restoration carpentry, has been with the NPS for 11 years. He was a student at the Williamsport Training Center from 1984 to 1985. Barry reports that his most interesting project in the past was to build a 100-foot, free-span covered bridge. Barry volunteered to be a mentor to share the knowledge he's gained in preservation with others. Barry is one of two back-up mentors this first year, but will be assigned his own trainees in the second PAST class which begins in July 1994.

Frank Doyle, Mason, Independence National Historic Park. Frank has been a union member for 47 years; he became a journeyman bricklayer at age 19. He is the only bricklayer at Independence, where he works on 41 buildings and 10 acres of brick paving. Frank figures he has laid over a million bricks in his time! Frank was Director of Masonry Relations for the Structural Clay Products Institute, Region III for five years. He developed a program and curricula for apprentice training and for vocational schools. Frank decided to volunteer as a mentor to try something different and learn something new. He looks forward to working with his trainees, Rick Maestas at Manassas National Battlefield and Jesse Sherrod at Fort McHenry.

Keith Edge, Maintenance Mechanic, Grant-Kohrs Ranch National Historic Site. Keith has been a journeyman carpenter for 25 years, and has worked at Grant-Kohrs for 2-1/2 years. Keith is an experienced teacher. He studied at Williamsport Preservation Training Center in 1992, and participated in a Williamsport-funded training project at Grant-Kohrs which involved the repair of 58 window sash. Keith will be mentoring Steven Giese in his own park at Grant-Kohrs and William Thompson at Yellowstone National Park. Keith feels that the PAST program will be a highly successful way to exchange knowledge among mentors and trainees.

Michael Fortin, Senior Exhibit Specialist, Cultural Resources Center, North Atlantic Regional Office. Mike has been with the National Park Service for 25 years since he began at Hawthorne's Wayside. He has worked at the Cultural Resources Center since it opened in 1968; this allows him to work at different NPS sites doing a variety of unusual projects. Some of his most interesting projects were at the Wayside Minute Man Park, the Old North Bridge and Hartwell Tavern at Minute Man National Historical Park, and the home of Augustus Saint Gaudens at Cornish, NH. He also enjoyed restoring a 6' wooden eagle on the customs house at Salem Maritime National Historic Site. Mike is a skilled teacher who looks forward to sharing his knowledge with PAST trainees in order to develop and enhance the NPS preservation work force. He will be working with all the trainees in the NARO program: Scott Fletcher, Austin Price, Cynthia Moore, Charles Ziets, Kent Garland, Ken Kasner, and Stanley Zielenski.

Ross Hunt, Historic Architecture Division, Southeast Regional Office. Ross has been a mason for 15 years, five of them with the NPS. He comes from San Antonio, TX, where he did extensive work on the Alamo and Spanish missions. He has worked throughout the Southeast Region: two of his most memorable projects were disassembling and reconstructing a large monument at Guilford Courthouse NMP and partial reconstruction of the Reef Bay Greathouse in the Virgin Islands. Ross is working with the PAST program to expose motivated NPS employees to correct preservation philosophy and foster a desire to learn and study and develop themselves. He will be working with James Davis at Natchez NHP and Rodney Prioleau at Fort Sumter NM. In the future, Ross would like to be a facility manager or masonry consultant in the NPS, or possibly a cultural resource manager.

Bruce Koslowski, Masonry Worker, Fort Larned National Historic Site. Bruce worked as a mason in the private sector until he came to Fort Larned in 1980. He is proud of the

(PAST—continued on page 18)

(PAST—continued from page 17)

work he has done on the restoration of Fort Larned, where he found work on the Commanding Officer's Quarters particularly interesting. He also enjoyed working on the Varnum's Quarters Spring House at Valley Forge, PA and on the Cemetery Wall at Fredericksburg, VA. Bruce was originally from Albuquerque. During the 19th century, his family owned land that is now part of Pecos National Historical Park, where he will be mentoring Christina Armijo. Bruce will also be working with Darren Bryant from Guadalupe Mountains National Park. Bruce feels that he benefits himself by teaching and helping with masonry projects in other parks so he can keep up his skills; he hopes to continue doing restoration and preservation, and to expand his training activities.

Charlie Masten, Exhibits Specialist, Midwest Regional Office. Charlie, who is a native of Michigan, says that one of his biggest preservation challenges so far was stripping 120 years of paint off the copper domed roof of the AuSable Lighthouse, 100′ above Lake Superior at Pictured Rocks National Lakeshore. Charlie is a strong preservation advocate. He would like to get an advanced degree in Historic Architecture or Preservation, and someday to help set up an NPS Preservation Center in the Midwest Region, similar to those in the Northeast, Southeast and Southwest Regions. Charlie would like to develop preservation training courses and teaching aids such as videos and preservation briefs. Charlie will be mentoring Paul Taylor, at Lincoln Boyhood National Memorial, and Michele Cefola at Harry S Truman National Historic Site.

Charles Moss, Carpenter, San Antonio Missions National Historic Park. Charles, originally from Memphis, TN, has been at San Antonio Missions for five years. An experienced teacher, he signed up for the PAST program to share his skills in woodworking, and also to continue his own learning. Charles has found restoring historic doors and gates, and making models of the missions particularly interesting. Charles will be a back-up mentor for the first year, with the opportunity to to mentor his own trainees in the class beginning in July 1994.

Lisa Sasser, Assistant Chief Historic Architect, Park Historic Architecture, Washington Office. Lisa has been with the NPS for nearly 16 years. She worked at Williamsport Training Center in Williamsport, MD from 1986 to 1993, and recently moved to Park Historic Architecture in WASO. Lisa volunteered to be a mentor because she'd had several outstanding mentors herself and because she believes strongly that preservation is as much about people as about buildings. She wants to spend as much time as possible in the field doing "hands on" work on buildings. She's looking forward to working with Kenneth Coss at San Juan National Historical Park, and with George Barrett at Klondike Gold Rush in Alaska. Lisa says that some of her most interesting projects so far have been building a new "piece en piece" vertical log winter/summer cabin for the U.S. Forest Service at Mt. Hood, OR; supervising the rehabilitation of the entry level lobby of the Washington Monument; and working on a 114 ft.-span covered bridge at Cuyahoga Valley National Recreation Area.

John Wood, Exhibits Specialist, Charles Pinkney, National Historic Site. John has worked ten years for the NPS. During that time, he has taken many courses in historic preservation, and served as supervisor or lead craftsman on approximately forty historic preservation projects. Some of his most interesting projects have been at Plum Orchard in Cumberland Island National Seashore; Martin Luther King's Birth Home, and Andrew Johnson's Home. John looks forward to meeting and working with more NPS employees in other NPS sites. He will be working with Joseph Temple at Colonial NHP in Virginia and Sandra Eichmeyer at Petersburg National Battlefield. John is originally from Atlanta.

Susan Escherich is a historian in the Preservation Assistance Division, National Park Service.

Cooperating for Solutions

The Southwest Region Collaborates with The University of Pennsylvania

John E. Cook

The Southwest Region of the National Park Service is responsible for preserving some of the most unique and varied cultural resources in the system. A broad scope of history is reflected in pre-Columbian sites, Spanish Colonial, settlement/westward expansion, and finally 20th-century American development. We are very proud of these resources and recognize that this diversity demands both a vigilant and flexible approach to managing preservation strategies.

Often in cultural resource preservation, site-specific adapted solutions are required of generalized approaches. We are accomplishing this by realizing that we need regional solutions to regional problems which will be focused to a unique park problem and that we can not do it alone. We must find partners whose expertise and resources can join in a common effort to apply the best conservation approaches and methods to achieve our mandated goal of passing the resources on **unimpaired.** The cooperative agreement I signed with the University of Pennsylvania in 1992 is rewarding us with challenging and positive consequences. The results of specific subagreements assist us in developing a continuing preservation ethic based on responding to prioritized needs, sound research, condition assessments, testing solutions, applications in the field, training in and out of the Service, and recommending future programs. Products are site specific, but methods translate across the board.

Following the guidelines of the Cultural Resources Preservation Program, superintendents from four of our parks (Aztec Ruins National Monument, NM; Fort Union National Monument, NM; Fort Davis National Historic Site, TX; and Bandelier National Monument, NM) sent in development/study package proposals in the late 1980s that identified major deficiencies in the preservation of plasters on walls. These proposals were representative of our wide diversity—prehistoric mud plaster on stone, historic mud on stone, and lime plaster on adobe. Naturally, some common threads linked the proposals. The Southwest Region's Division of Conservation grouped together the four parks to strengthen the argument for funding by offering to share approaches and solutions; and, in 1990, a three-year program was kicked off.

Coincidentally, in 1990, the Sixth International Conference on the Conservation of Earthen Architecture (Adobe 90) was held in New Mexico; and, naturally, the Southwest Region played a large role in the conference. It was there that members of my staff interacted with others who were searching for solutions to the same problems. We realized we had an opportunity to collaborate; and with a singular vision held, the necessary steps were taken to put a program in place.

Step-by-step methodical work resulted in the completion of plaster stabilization and backfilling of Anasazi walls at Aztec Ruins over the three-year period. Collaboration with architectural conservators was necessary to achieve a comprehensive program supplementing our skills in ruins preservation. We readily recognize our deficiencies in dealing with some of the more esoteric aspects of conservation and rightly seek those skills where necessary.

Dealing with 1930s mud plasters on stone at Bandelier has proved more problematical from a maintenance and compliance view. Pilot tests have been accomplished, and further test walls will be required to complete the study so that a consultation process with the State Historic Preservation Officer can resolve the direction of treatment. Only then can a replastering preservation program be launched.

In 1992, we embarked on an ambitious program, using the new cooperative agreement with the University of Pennsylvania to achieve real solutions to some of the very troubling and difficult plaster preservation issues at Fort Union and Fort Davis where similarities are most profound. Our staff had worked on documentation, assessment, and some limited stabilization efforts in 1990 and 1991. Again, looking to others to supplement where we are weak was the order of the day, and the cooperative agreement became the vehicle.

In the course of the three-year cultural resources program, we have recognized that the needs extend way beyond the scope of a three-year cycle and that a much larger and more expanded program will be required to address all the wall plaster problems at these parks and other parks where the problem goes largely unidentified. (Canyon de Chelly, AZ, has been at work identifying and mapping their plasters with an eye to conservation eventually.) Thus, we extended the three-year program for two additional years as a bridging tool. A program continued in 1993 and, hopefully, can be funded in 1994. These can be no more than pilots as funding levels are stretched to a minimum, but they have and do set us on the course to real solutions.

Thus far, the results of our cooperative agreement are a win/win. NPS personnel and graduate students receive training in conservation techniques, research work is accomplished at the University of Pennsylvania that could never be approached under current restraints, pilot treatment programs are defined and applied by students who volunteer, and creative solutions are mutually developed in collaboration between the NPS and the university that become available to the public at large. The groundwork is laid, measured progress achieved, and a direction for the future set.

John Cook is director of the Southwest Regional Office of the National Park Service.

Editor's Note: In a future issue of CRM *we will include project summaries for the model sites included in the cooperative agreement with the University of Pennsylvania, which offered a methodology for the documentation, stabilization, and interpretation of architectural plasters at earthen ruins.*

Orphans of the NPS

The NPS Clearinghouse

Kathleen Byrne

What do the Thomas Moran paintings hanging in the Interior Secretary's office, a 17th-century bellarmine jug at Colonial National Historical Park, and a brush without most of its bristles have in common? They were or are all part of the NPS Clearinghouse collection of museum objects, sometimes referred to as the "orphans of the National Park Service."

In direct contrast to the site-specific nature of museum collections in the parks, the NPS Clearinghouse serves as a repository for an eclectic collection of objects that were brought together due to their lack of provenience to any NPS site. Many of the objects were received from parks because the objects did not fit within the Scope of Collection for the park. Others were purchased and deposited at the Clearinghouse until they might be needed at a park or a future site, and some are of unknown or lost provenience.

The Clearinghouse is one of the programs of the Curatorial Services Division, Washington Office, but it is located, along with the National Catalog, in the bombshelter underneath the Mather Employee Development Center in Harpers Ferry, WV. A few large objects are stored at the Museum and Archeological Regional Storage facility in Maryland. In the early 1980s the Clearinghouse stopped accepting the physical custody of objects, with the goal of deaccessioning the entire collection and discontinuing storage. Since 1985, the collection has dropped in size from approximately 3,100 objects to 1,600. Nearly 300 objects of the current total are on loan with the intention of deaccessioning them when NPS deaccessioning authority is expanded to include transfers or donations outside the Service.

The majority of the present collection consists of 19th- to mid-20th century history objects, including furnishings, clothing, textiles, tools, ceramics, prints, and various miscellaneous materials. Although some of these objects, like the brush without bristles, are in poor condition, many could be placed on exhibit or in a study collection. The Clearinghouse staff advertises these objects through inventory lists and the Clearinghouse Classifieds, a newsletter of excess and needed objects that is sent throughout the Service and to over 200 non-NPS museums. The latest issue of the Classifieds included ads for lamp chimneys, pipe bowls, coverlets, and coats at the Clearinghouse and ads from Morristown National Historical Park, Joshua Tree National Monument, and the Department of the Interior Museum.

Most Clearinghouse objects, such as the bellarmine jug transferred to Colonial, are transferred to parks; however, Clearinghouse objects are also on loan to several institutions, including the Smithsonian, Westpoint, and the Old Executive Office Building. In recent years, the Clearinghouse staff has conducted several exchanges of Clearinghouse objects for objects needed by parks.

The Clearinghouse staff is available to assist parks in transferring or exchanging objects that are outside the approved Scope of Collection Statement and in acquiring objects, either from the Clearinghouse collection or other sources, to fill needs identified in a park's Scope of Collection Statement. To this end, parks, non-NPS institutions, and individuals are encouraged to place ads in the Clearinghouse Classifieds. Ads are free and may include non-museum objects. To place an ad or be placed on the Classifieds mailing list, contact the NPS Clearinghouse at the Bombshelter, Harpers Ferry, WV 25425, or phone 304-535-6202.

Kathleen Byrne is a staff curator in the Curatorial Services Division, Harpers Ferry, WV.

NPS Joins Test of Micromist Fire Suppression System

John E. Hunter

The National Park Service is always looking for new and innovative ways to better protect its cultural resources. Improving the quality of fire detection and suppression and encouraging their more widespread use are high priorities. For this reason, the NPS is taking a hard look at a new type of fire suppression system just introduced into this country.

A micromist system under testing by Reliable Automatic Sprinkler Corporation, Beaumac Corporation, Marriott Hotels, and the University of Maryland Fire and Rescue Institute is an unusual variation of a water sprinkler system. Taking water from either a fire main or a fixed quantity tank, the micromist system discharges water at about 1000 psi pressure through 1/2" stainless steel tubing. Special fine orifice nozzles located along the tubing inject an extremely fine aerosol (about 9-15 microns diameter) of water droplets into the air, producing a high efficiency cooling fog, which extinguishes fires with significantly less water than other standard sprinkler methods. Initial tests on mocked-up hotel rooms, for example, have demonstrated extinguishment with about 1-4 gallons of water, including fires set under beds. This amount of water contrasts dramatically with the usual 20-40 gallons of water discharged per minute by a typical conventional sprinkler head.

The micromist system is activated by smoke detection equipment in the same way that gaseous extinguishing systems, such as Halon 1301, are activated.

Tests on similar systems in Europe showed them to be safe in computer rooms, switch gear rooms, store rooms, marine engine rooms, shipboard quarters and public areas, and a variety of other structures and spaces. The

small volume of water typically discharged causes no problems with energized electrical gear or computers. The water has demonstrated capability to wash harmful smoke particles, including corrosive PVC gases, from the air. Spaces protected by micromist systems do not have to be evacuated or sealed prior to discharge, as is the case with gaseous agent systems, such as the halons and recently developed halon alternatives. The water poses no life safety hazard, unlike many gaseous agents, and is environmentally safe. Micromist piping and nozzles are very simple in construction which enhances system reliability. The system takes up much less space than a sprinkler system, since pipe sizes, control equipment, water supply, and pumps typically are much smaller.

At this time, micromist systems are not listed by Underwriters Laboratories (UL) or Factory Mutual (FM), and do not conform to any existing standard of the National Fire Protection Association (NFPA). However, NFPA has formed a new water mist standards technical committee, and listings are expected in the future.

The micromist development team is working with a number of cultural heritage agencies, including the NPS, the Library of Congress, the National Gallery of Art, and several Canadian and European institutions, to test the system in late 1993 through mid-1994. The tests will include exposure of museum, library, and archival materials to fire and water discharge, and subsequent evaluation of those materials for damage by conservators and curators. Limits of extinguishing capability also are expected to be identified during the test program. If damage is shown to be minimal or non-existent, once the system has UL, FM, and NFPA approval, it should be an extremely viable alternative to halon systems. The micromist system also may prove to be a desirable way to protect historic structures in which conventional sprinkler systems can be very difficult or expensive to install.

Upon completion of the University of Maryland tests, the NPS will disseminate the results of the tests through agency safety and cultural resources channels. The micromist system may be recommended for small space applications and to replace existing halon suppression systems which are being phased out because of new Environmental Protection Agency regulations restricting the use of halons and other substances that damage the Earth's ozone layer.

John Hunter is supervisory staff curator in the Curatorial Services Division, National Park Service, Harpers Ferry, WV.

It is No Small Thing to Outwit Time[1]

Elizabeth M. Browning

Outwitting time was the underlying theme of the Archeology and Ethnography Collections Care and Maintenance course held in Tucson, AZ, in June of this year. The concept of a training course emphasizing a preventive conservation approach to collections management "grew out of the Pilot Training Program for Collections Care and Maintenance funded by the Bay Foundation and administered by the National Institute for the Conservation of Cultural Property (NIC) in cooperation with the American Association of Museums and the American Association for State and Local History."[2] Preventive conservation is the ongoing activity of non-interventive actions taken to prevent damage to and to minimize deterioration of objects housed in museums, libraries, research centers, and similar institutions. As part of the program, the Arizona State Museum developed a curriculum focused on the management of archeology and ethnography collections. Three other museums simultaneously developed curriculum for training staff who care for fine arts, history, and natural sciences collections. All four curricula, published by the NIC, are available for use by museums in developing training courses for site staff.

The course discussed here was adapted from the original pilot training program and is currently funded by the Cultural Resources Training Initiative of the National Park Service (NPS). Since its first offering by the NPS in 1991, 60 participants have completed the course. The

Constructing custom storage mounts was cited as one of the most beneficial sessions of the course.

two-week (80 hour) course is primarily designed to serve non-Federal museums, Native American cultural centers, historical societies, and other cultural institutions that have limited opportunities or budgets for staff training. The NPS funds travel and lodging costs, while the participant's institution or agency pays for daily meals and incidental expenses. Only five of the twenty available spaces may be filled by qualified applicants from the Department of the Interior. Geographically, this year's class included participants from Alaska to Georgia, Massachusetts to Micronesia. Agencies represented included state museums, historical societies, and preservation agencies, Indian tribal museums and reservations, private museums, the Bureau of Indian Affairs, and the National Park Service. To qualify, applicants must be

*(**Browning**—continued on page 22)*

(*Browning—continued from page 21*)

Field trips to local repositories and museums present opportunities to apply new principles.

responsible for the care of museum collections that include a high percentage of archeological and/or ethnographic objects. Individuals who spend much of their work day caring for museum objects but have had minimal training in collections management are strong candidates for selection.

The philosophical and ethical underpinnings of collections management are reiterated throughout the course in sessions on the nature of anthropological collections, principles and ethics, and legal issues. Overall, the course emphasizes the physical preservation and protection of objects. Classroom lectures on the museum environment and storage are supplemented with hands-on practicums, including a four-hour workshop in design and construction of custom storage mounts. Instructors take a practical approach to planning, funding (grant-writing), security, handling of objects, conservation treatment, and exhibit design and production. Frequent classroom exercises give participants an opportunity to apply new material and to benefit from an instructor's assessment of their product. In addition, the teamwork required during some exercises hones skills needed on-site where staff members from various disciplines must forge consensus while dealing with limited time and funds.

The Western Archeological and Conservation Center generously hosts the course, providing classroom space, instructors, and access to a storage space and conservation lab. Staff of the Arizona State Museum and the Central Arizona Project Repository are regular members of the instruction team, as are staff of the University of Arizona. Additional instructors are drawn from all areas of the museum profession including conservators and exhibit designers in private practice, staff from small- to medium-sized museums, the Smithsonian Institution, the National Endowment for the Humanities, and the National Park Service.

Two highlights from this year's course illustrate the caliber of the training experience. Based on recommendations from previous classes, a new session on handling sacred and culturally-sensitive objects was added to the curriculum. This year's session focused on Native American issues regarding such objects. However, as one participant noted, the principle of "treating objects with proper respect relative to their cultural context" can be applied to objects from all traditions. A second session was facilitated by the Arizona State Museum, where a new exhibit, Paths of Life, was under construction. An evening tour gave participants a look at the complex process of planning and producing an exhibit that extensively uses museum objects.

As in preceding years, participants, instructors, and coordinators closed the course with a sense of having experienced something extraordinary. Perhaps the participants gave the best expression of a shared perception in their course evaluations: "I personally feel that the combination of different experiences of the participants contributed a lot to the overall success of the training. Thanks for a memorable, instructive, stimulating experience."

Hands-on practicums are a strong point of the course.

For information on this course, contact the National Park Service, Curatorial Services Division, P.O. Box 37127, Washington, DC 20013-7127. An announcement soliciting applications for the Archeology and Ethnography Collections Care and Maintenance course are widely distributed throughout the museum community each spring. To receive a copy of this announcement, contact the Stephen T. Mather Employee Development Center, National Park Service, P.O. Box 77, Harpers Ferry, WV 25425-0077.

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[1] Motto of the National Institute for the Conservation of Cultural Property taken from remarks given by A. Bartlett Giamatti in 1982.

[2] Training for Collections Care and Maintenance: A Suggested Curriculum, National Institute for the Conservation of Cultural Property, 1990.

Elizabeth M. Browning is a staff curator in the Curatorial Services Division, National Park Service.

Preserving the Past by Protecting the Present

Terry Lord

Virginia Woolf, the great writer of the early-20th century, once said that "Nothing has really happened until it has been described." Of course she was speaking as one who "described" through writing prose and poetry and attempted to bring about truth and beauty in literature. But in the broader sense, our history must be given interpretation and described clearly for it to have meaning and to aid us in understanding the present. Protecting our archeological resources is one way in which we give description and context to the past in order that we can actually determine that something really did happen.

As stated in the Archaeological Resources Protection Act (ARPA), one of the purposes of the statute is to **protect and preserve** archeological resources from predators, looters, and thieves. I would like to talk about what it really means to protect and preserve our archeological resources and what these resources mean to all of us as citizens who are striving to make our lives and the lives of those coming after us more rewarding. We must first of all believe deeply in the purpose behind the laws we are seeking to uphold to be effective prosecutors of those who would violate those laws. The Antiquities Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act all have as their underlying theme the concept of preserving the past, for as Lorrie Northey states in her article appearing in the *Harvard Environmental Law Review*, "archaeological resources offer a glimpse of vanished cultures and some understanding of the relationship between the past and the present." Congress enacted ARPA to secure for our present and future benefits of the American people, and for the protection of archeological resources sites which are on public lands and Indian lands. In fact, the legislative history of ARPA is replete with expressions of hope that the next decade will witness a new era of cooperation between private individuals and the government in preserving our archeological resources.

In order to promote such a cooperation, all of us in the citizenry must understand the importance of what we are preserving. Self-understanding of ourselves as individuals and our roles in society comes from a knowledge of where we came from. Our archeological resources offer a connection to the past which in effect is a road map to our future.

*(**Preserving**—continued on page 24)*

A new training course titled Overview of Archeological Protection Law was begun in October 1992, and held at Mesa Verde National Park, a World Heritage Site. It was designed to provide casework guidance for federal attorneys, solicitors, and general counsels; state attorneys-general; and Tribal attorneys. It is sponsored cooperatively by the National Park Service and the Office of Legal Education, Executive Office of United States Attorneys, and Criminal Division of the Department of Justice. The course consists of introductions to the law, practical problems based on recent significant case histories, and field visits to acquaint attorneys with archeological resources and the effects of damage caused by looting and vandalism.

The case histories were presented by the Assistant United States Attorneys who prosecuted each case. The cases selected served to illustrate effective courtroom strategies and pre-trial preparation, use of expert witnesses, appellate implications, and approaches to illegal commercial trafficking.

One session of the course which helped explain the purposes of archeological protection was presented by Terry R. Lord, who is Principal Deputy Chief, General Litigation and Legal Advice Section, Criminal Division, Department of Justice. He draws attention to legislative objectives in the enactment of the Archaeological Resources Protection Act, which encourage public understanding of the cultural past through preservation of cultural places. In referring to the protection of one type of archeological site, Civil War battlefields, he provides a perspective on the need for successive generations of people in a society to rediscover themselves.

Trainees and instructors viewing preserved sites, Mesa Verde National Park. Terry Lord at right.

(*Preserving—continued from page 23*)

Although our country's history is often viewed in terms of political history—that is to say, who were our leaders? What laws did they pass? What wars did they get our country into and out of?—but in a larger sense the political history is only the outward manifestation of the actions and ideas and values of the people. What people believe, values, ideals, and aspirations must be interpreted and carried forth to our posterity and the only way that the transition can be made is to preserve and protect our historic sites and archeological resources which enable a more accurate interpretation of the past. There have been instances in history when nations have chosen to rebuke the gifts of past generations, to nullify the knowledge and ideals of prior cultures. But to deny the benefit of cultural understanding by failing to promote the preservation and protection of resources which offer that understanding is to deny the present generation its natural growth toward self-understanding. We are here at this conference to gain a better understanding of the laws which our country has enacted to help us protect our historical and archeological resources, laws which enable us to accept the gifts of past generations. The vigorous enforcement of these laws shows our appreciation for our heritage and further demonstrates our pursuit to bestow the blessings of our best cultural ideals on present and future generations. It is at great peril that we not protect such resources. There have been horrible consequences when a nation or government has rebuked its own cultural gifts from the past which in essence is a rejection of natural growth toward its real values. The horrors of Nazi Germany were caused by many factors and among them, not the least of which, was the rejection of a wealth of cultural background which had up to that time made Germany among the most enlightened civilizations of the world. Germany attempted to rewrite its history and reject its rich cultural background in literature, music, philosophy, and science.

In our own country, we inherited from our forefathers the concepts and principles of liberty, freedom, equality, and a work ethic that promotes a spirit of industry and creativity. But there was a part of our society that believed strongly that the pursuit of happiness and the right of property necessitated the subjugation of a race of people; thereby depriving an entire body of our nation the basic right to freedom and equality. A great Civil War ensued causing the most wide spread destruction that our nation has ever experienced.

And from that war, our country again had to make a transition to a more democratic nation by accurately describing the true meaning of the Civil War. Our Civil War battlefield sites provide us with a part of that understanding; they are the evidence of a great legacy of individual heroism and sacrifice. We absolutely must protect such sites in an effort to give more accurate interpretation to our nation's history. In the words of the late poet laureate, Robert Frost, from his poem, "The Generations of Men":

> *"...Nothing would do but they must fix a day;*
> *To stand together on the crater's verge*
> *That turned them on the world, and try to fathom*
> *The past and get some strangeness out of it."*

This sense of time, the awareness that countless others have come before us and that others will follow in endless generations, distinguishes men from other animals. And with this discovery of the meaning of death—that man's own life is limited, life is given added meaning, because we have given description to the past.

Terry Lord is Principal Deputy Chief, General Litigation and Legal Advice Section, Criminal Division, Department of Justice.

From the Editor...

This past year has been extremely productive for *CRM*. To date we have published 11 issues and there are two more scheduled for release by the end of 1993. With a full year of issues nearly behind us, it is time to line up articles and plan issues for 1994. As in the past, the editor welcomes feature articles and news items, as well as ideas for thematic issues. Listed below are the thematic issues proposed for next year. If you wish to contribute articles for any of these issues, or if you have ideas for topics to be included, please contact the editor of *CRM* as soon as possible.

Themes

African American history

Local preservation programs

National Register of Historic Places

Cultural/historic landscapes

International maritime preservation

Outdoor sculpture and monuments

In addition to the thematic issues, we expect to publish a minimum of four other issues containing a variety of feature articles and news items. Your ideas are needed.

Reader Survey

We are tabulating the responses to our recent reader survey (*CRM*, Vol. 16, No. 7) and will report on the results in a later issue. Although the due date has passed, we are still interested in receiving your responses.

If you have not returned the "Mailing List Update" portion of the Survey, please do so as soon as possible. If you have not responded by the end of this year, your name will be removed from the mailing list.

Washington Report

Capitol Contact

Bruce Craig

Heritage Area Legislation

The National Park Service has long recognized that there are many distinctive landscapes, corridors, and places that are deserving of some level of federal technical or financial assistance. But because these areas either lack sufficient national significance or for a variety of other reasons are not considered appropriate or well suited to management as traditional national park units, in the past, without a well-placed congressional sponsor, such areas have had little chance for federal funding and support.

For several years now, the NPS has been exploring the possibility of establishing a new statutory system to assist in the conservation and interpretation of these special places. A "National Heritage Area" could be defined as a place where natural, cultural, and historic resources combine to form a cohesive, nationally-distinctive landscape arising from patterns of human activity shaped by geography. Roger Kennedy, the new Director of the Service, has heartily endorsed the concept, though, until recently, the administration has not openly discussed the proposal with members of Congress.

On June 15, 1993, New York Representative Maurice Hinchey (D-NY and a new member of the House Subcommittee on National Parks, Forests, and Public Lands) introduced legislation (HR 2416) based on the concepts envisioned in the proposed NPS heritage partnership program. On September 21, 1993, however, in a hearing before the Senate Public Lands, National Parks, and Forests's Subcommittee on S. 1033 (Senator John Warner's (R-VA) bill to establish the Shenandoah Valley National Battlefields in Virginia) and S. 1341 (Senator Robert Byrd's (D-WV) Wheeling National Heritage Area in West Virginia), the National Park Service discussed the Administration's views on heritage area legislation that the Service expects to see introduced shortly.

The catalyst for the Service's proposal is the plethora of bills introduced in recent years which seek to establish either new national park units or new national heritage corridors. Two such bills—Senator Robert Byrd's Wheeling National Heritage Area legislation (S. 1341) and Senator Ted Kennedy's (D-MA) Essex Heritage Area in Massachusetts (S. 1342)—were introduced the very same day, August 3. These bills, together with Senator Jim Jefford's (R-VT) Lake Champlain Valley and Upper Hudson River Valley Heritage Area Study Act (S. 1327), Senator Patrick Moynihan's (D-NY) Hudson River Artist's National Historical Park (S. 112), and Senator John Warner's Shenandoah Valley National Battlefields Act (S. 1033), are expected to become focal points of debate over whether to establish a new "National Heritage Area" designation.

As introduced by their congressional sponsors, the latter two bills seek to establish full-fledged new national park units. However, the NPS testimony on the Wheeling and Shenandoah bills suggested that Administration officials would like to see these areas and others like them as likely candidates for the proposed new National Heritage Area program, "an alternative approach that would meet the needs of local communities without creating a management and financial burden for the federal government."

During the hearing, Senator Byrd reiterated his enthusiasm for the Wheeling project which he felt "could serve as a model" for future heritage areas. "Rather than depending on long-term federal financial assistance," said Byrd, "the role of the federal government is envisioned as short-term to aid the influx of capital to assist in the development of the interpretive venues." Byrd's proposal is also unique in that it seeks to eventually make the Wheeling Heritage Area self-sustaining.

Senator Warner and Civil War Battlefield preservationists who testified in favor of S. 1033 (Warner's bill provided for the designation of a 1,140-acre "core" for a new national battlefield) expressed some concern over the NPS recommendation not to establish a full-fledged national battlefield park unit in the Shenandoah Valley of Virginia. Wil Green, Executive Director of the Association for the Preservation of Civil War Sites Inc. (APCWS), argued that the NPS position ran contrary to its own Civil War Battlefield Commission's recommendations and failed to provide for the preservation of nationally-significant resources "in perpetuity." John P. Monahan III, President of the Stonewall Brigade Foundation, minced no words when he declared that the NPS proposal for the Valley battlefields "would fail to preserve the endangered battlefields." In testimony submitted to the Committee, National Parks and Conservation Association (NPCA) argued that the NPS Heritage Area proposal should not be used as a vehicle to stop designating new clearly nationally-significant NPS areas merely for fiscal reasons.

While NPCA and other organizations have expressed concern over the new heritage partnership proposal, a National Heritage Area's Coalition has recently been established to advance some form of a national program for heritage areas. Though the coalition has not endorsed representative Hinchey's legislation or the NPS proposal discussed during the recent congressional hearing, there is little disagreement among the preservationists that some form of regional heritage development program funded by the federal government would be beneficial. However, the all-important question relates to the programs' likely funding source. According to some Capitol Hill sources, establishment of a National Heritage Area System faces an uphill battle, especially during this budget-sensitive Congress.

If you would like a copy of any of the bills or testimony discussed above, drop me a note at National Parks and Conservation Association (NPCA), 1776 Massachusetts Avenue, NW, Suite 200, Washington, DC 20036.

Viewpoint

Letters

Park Roads and Parkways

Dear Editor:

I am writing concerning the excellent article "Made for Motoring" by Sara Amy Leach in Volume 16, No. 6.

As Ms. Leach notes, the Bronx River Parkway, 13 miles of which are owned by the County of Westchester, was "...the first of its kind"; i.e., the first public, limited access parkway. For that reason, and because of other characteristics including landscape and bridge design and environmental significance, 10 miles of the Westchester section of the Parkway Reservation were listed on the National Register of Historic Places in January 1991.

However, when the Parkway was dedicated in 1925, most Americans drove primarily for pleasure, at speeds that allowed them to enjoy the scenic experience provided by the Reservation. Today, the Parkway functions as a major commutation route, in addition to being "a road through a park," and the average speed is often twice that for which the Parkway was designed.

Are the two functions completely incompatible? **Can** a parkway meet Federal Highway Standards while maintaining its environmental, historical and architectural significance? Westchester

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(Viewpoint—continued from page 25)

County is struggling mightily with that dilemma. What we need—and what the stewards of other significant parkways need—is a set of standards specifically designed for **park**ways, not **high**ways. Standards that are legally defensible. Otherwise, I fear we will lose these marvelous early-20th-century resources to a very dubious form of "progress."

Anybody out there want to join a cooperative effort to save the parkways from the "driving force" that threatens them? I understand AASHTO (American Association of Highway and Transportation Officials) is revising its Green (standards) Book for re-release in 1994. If those of us who are desperate for revisions sensitive to cultural values speak from consensus, our voices will be stronger and the 1994 AASHTO standards more likely to meet our needs.

Sincerely,

—Karen Morey Kennedy
Associate Planner
Historic Preservation
Housing & Community Dev. Div.
White Plains, NY

The National Trust for Historic Preservation, with financial assistance from the James A. MacDonald Foundation and technical assistance from the Westchester County Department of Planning and staff of the Connecticut Department of Transportation, is undertaking research on specific issues that should be addressed in developing geometric design guidelines for historic parkways. The results of the research will be presented by a spokesperson of the Surface Transportation Policy Project (STTP) at the next meeting of the AASHTO Task Force on Geometric Design in Texas, November 9, 1993. For further information, call Shelley Mastran at 202-673-4037.

To the Editor:

I think the letter from Karen Morey Kennedy (above) concerning the article "Made for Motoring" is indicative of the widespread concern about loss of park roads and parkways, that were designed with aesthetics and leisure driving as the objective. While, as she suggests, legally binding standards might provide a tool for preservation I suspect the benefactors will be lawyers rather than those who want to preserve and use these roads as originally intended.

A lot of mayhem has been wrought in the name of progress and safety—in this case Standard 12 of the Highway Safety Standards. Fortunately progress has been made in communication between those responsible for highway safety and others concerned with preservation of scenic and "historic roads." It is hard to argue for the somewhat abstract idea of preservation when the other party is arguing with charts, graphs, and statistics on accidents and death. If you are against safety you must be for death because any breach of safety standards could be lethal, so the faulted logic goes.

We have worked successfully with the Federal Highway Administration's Direct Federal Offices in resolving the inherent conflicts of the two objectives in the preservation of park roads and parkways of the national park system. They care about such matters just as much as we do and have long been our partners. When dealing with road rehabilitation projects on a case-by-case basis it is very difficult to remain totally consistent and impossible to do so between Direct Federal Offices and NPS Regional Offices. Differences frequently develop over the application of safety standards to existing park roads. Safety is not always the issue. The expectations of park users and the type of equipment they tow, haul, or drive causes pressure to improve "roads" as well.

The National Park Service is undertaking a Historic Roads Study to document the development of national park road and parkway planning, design, and construction from the beginning of such work through 1950. While concentrating on the corridor, edge, and associated features, this study will provide the historical context information for National Register of Historic Places Multiple Property Forms. The study also will provide a summary checklist and a methodology for identifying and evaluating historic park roads following National Register criteria. The study will establish guidelines for maintaining significant historic fabric while allowing for contemporary use, upgraded highway standards, and safety. Such information will assist park managers and designers in meeting project schedules while instituting a nationally applicable methodology for rehabilitation and management of historic park roads.

The principle investigator is historian Laura Soulliere Harrison of the National Park Service's Denver Service Center. While the scope of this study is confined to national park roads it may have far-reaching impacts on roads and parkways outside the national park system since it will deal substantively with the early design experiments, failures, and vision of the designers to achieve the effect of "lying lightly on the land" where engineering features that cannot be sublimated are treated as works of art in the "rustic style." This is important because of the tendency to concentrate on the hardware of roadways, (guardrail, bridges, and roadside features) and minimize the importance of location, alignment, vegetation variation, slope transition, and view framing.

In addition to the Historic Roads Study discussed above the Historic American Buildings Survey and the Historic American Engineering Record are actively recording many of the National Parkways and park roads.

As in any art form lay persons enjoy and appreciate the artists expression without knowing quite why. The gift of the artist is to elicit an emotional response. The park road designers were artists in full scale. The object of this study is to rediscover and document the design principles and subtleties of the artistic expressions of these artists who were so successful in eliciting that emotional response.

—James W. Stewart
Assistant Director, Planning
National Park Service

Practicing Anthropology as a Four-field Discipline

Barbara J. Little

If it didn't exist, we'd have to invent it. That's the overwhelming sense one gets from reading recent discussion about the basic make-up of anthropology as a four-field discipline comprised of cultural anthropology, archeology, biological anthropology, and linguistic anthropology. American anthropology has been multidisciplinary since its inception, long before such a strategy was fashionable.

As the study (logos) of humans (anthropos), anthropology is valued for its holistic breadth of field, formalized in the four subfields which are themselves broad. For example, archeology includes not only survey and excavation, but also ethnoarcheology, experimental archeology, modern material culture studies and much more. Ted Birkedal, in a 1991 *CRM* (Vol. 14, No. 5), described an example of ethnoarcheological research among the Nunamiut in Alaska.

An exploratory seminar held in March of 1992 at the School of American Research (SAR) focused on a current crisis in anthropology. Representatives from each of the four subfields discussed the implications of four trends: explosive growth of the field; increasing specialization in research and professional organizations; intellectual isolation of subfields from one another; and the actual or threatened break-up of academic anthropology departments (Brown and Yoffee 1992).

Cultural anthropology in particular is in intellectual flux. E.N. Anderson (1992) notes that, while influence of social theorists from Europe, particularly from France, has tended to turn some anthro-

pologists away from the four-field approach, the best thinkers are broad thinkers. The concurrent irony is that just as American departments are threatening to break up, departments in Britain, including Oxford, are adopting the American approach. The plenary session at the annual meetings of the British Theoretical Archaeology Group (TAG) last winter was entitled, "Archaeology as Anthropology, 30 Years On, Where Next?" In it there was made the explicit case to include archeology in anthropology departments as is done in the United States (Kent 1993).

Biological anthropologists and anthropological archeologists may see a strategic advantage in forming their own academic departments, but any advantage would be overshadowed by a likely diminishing of interdisciplinary vitality. At the SAR conference the question arose whether cultural anthropology would be able to hold together as a discipline, since the centrifugal forces working against it are so strong (Brown and Yoffee 1992).

The theme of the October 1992 issue of the *Anthropology Newsletter* (*AN*) of the American Anthropological Association was "The Four Fields: Myth or Reality." Writers from all of the subfields are quite emphatic and eloquent about the desirability of maintaining a four-field approach. (See, for example, letters from C. Loring Brace, Ward Goodenough, George Spindler, and others in the October 1992 *AN*.) In summary, David Givens and Susan Skomel (1992a) write,

> *American anthropologists still credit the quality of their insights, research and teaching in one field to past and present influences of the remaining three.... The persistent power of 'holism' continues today as American anthropology's essential and coveted reality.*

Its own academic practitioners affirm the value of anthropology's holistic four-field approach that has been practiced in the United States since the 1800s in spite of divisive factors. If a discipline could offer a lesson for the modern world, anthropology's motto could be 'Vigor in diversity':

> *[I]t is singularly the mission of anthropology to teach citizens about the biological, cultural, and historical diversity of humanity, to plead for the dignity of cultural differences, and to insist on an interdisciplinary approach to understanding humanity (Brown and Yoffee 1992).*

What is the relevance of academia's battles to practitioners and professionals outside of an academic setting? Certainly, it is academic departments that teach and train not only future employees at all educational levels but also future teachers. Of more immediate concern, the National Park Service has three new areas of responsibility that are best approached with a holistic anthropology possible through an integrated program. These areas are the Applied Ethnography Program, the Archeological Survey Initiative, and compliance with the Native American Graves Protection and Repatriation Act (NAGPRA).

Laura Feller (1992) reminds us that "one of the most important functions of NPS cultural resources management programs is to ensure that management decisionmaking processes are based upon adequate information about the whole spectrum of cultural resource values in parks." Among other programs, the Ethnography Program and the Archeological Survey Initiative are designed to provide such information.

The Applied Ethnography Program is focused on cultural diversity and the traditional use of both natural and cultural resources in parks. There is a need in several regions of the Park Service for careful attention to the needs of traditional users of park lands. In the Rocky Mountain Region, for example, Fred Chapman (1991) notes the results of a renewed activism in the steady increase in Native American interest and participation.

In a discussion of applied ethnography, George Esber (1992) contrasts the applied ethnographer's concern with continuity against a perceived interest by historians, ethnohistorians, and archeologists only in what is past. Unfortunately, such a statement overlooks the long-standing and explicit interest of archeology, as well as the other fields, in cultural continuity as a source of insight into past and present (and future) living cultures. There is no need to attempt to promote one part of the anthropological enterprise at the cost of another; such divisiveness in government and educational institutions is one of the reasons that the parent discipline is in such trouble. In addition to inventorying ethnographic resources, the National Park Service has also initiated a new archeology program to begin a systematic survey for archeological resources. Both the Ethnography Program and the National Archeological Survey Initiative will provide baseline data on cultural resources.

Another new responsibility is the implementation of NAGPRA which will involve anthropologists of all subfields, but primarily archeologists and cultural anthropologists. Frank McManamon (1992) thoroughly describes NAGPRA in a recent issue of *CRM*.

There are two points of compliance with NAGPRA that emphasize the need for a whole anthropology. First, the evidence by which potential lineal descendants, Indian tribes, or Native Hawaiian organizations can show cultural affiliation and request repatriation includes anthropological information such as biological, archeological, linguistic, kinship, and oral tradition; as well as geographic, historic, folklore or other relevant information or expert opinion. The statute requires the inventory and summary of and notification about particular skeletal and cultural items. It also intends the protection of funerary material still within archeological sites. Therefore, as McManamon (1992:10) writes,

> *it is advantageous for federal agencies and Tribes undertaking land-modifying activities on their lands to precede them with careful consultations with traditional users of the land and intensive archeological surveys whenever possible. This will help agencies and Tribes to locate and then avoid unmarked Native American graves, cemeteries, or other places where cultural items might be located.*

In its 90-year history, the American Anthropological Association (AAA), which is the largest professional organization for anthropologists in the world, has consistently affirmed the four-field approach (Givens and Skomel 1992b). The membership of the Society for Applied Anthropology (SAA) also is four-field. Because of its land-management responsibilities, the National Park Service has emphasized the subfield of archeology within the Anthropology Division. The new ethnographic and archeological programs provide an opportunity for practitioners of anthropology to reafffirm the integration of the discipline outside of the academy where the real needs of management, cultural diversity, and research are addressed.

References

Anderson, E.N.

1992 Four Fields in Ecological Anthropology. *Anthropology Newsletter* 33(8):3. (November).

Birkedal, Ted

1991 It's All One Story—A Look at Research in Alaska Today. *CRM* 14(5):28-30.

Brown, Peter J., and Norman Yoffee

1992 Is Fission the Future of Anthropology? *Anthropology Newsletter* 33(7):1,21 (October). Reprinted in *Society for American Archaeology Bulletin* 11(1):12,17 (January/February 1993).

Chapman, Fred

1991 Native Americans and Cultural Resource Management—The View From Wyoming. *CRM* 14(5):19-21.

Esber, George S., Jr.

1992 Applied Ethnography Addresses

*(**Viewpoint**—continued on page 28)*

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Cultural Diversity. *CRM* 15(7):19-20.

Feller, Laura

1992 Cultural Resources Management in National Parks. *CRM* 15(3):12-13.

Givens, David B., and Susan N. Skomel

1992a The Four Fields: Myth or Reality. *Anthropology Newsletter* 33(7):1,17. (October).

1992b Four Fields in the Triple A. *Anthropology Newsletter* 33(8):1,17. (November).

Kent, Susan

1993 Unit News: Archeology Division. *Anthropology Newsletter* 34(3):6-8. (March).

McManamon, Francis P.

1992 Managing Repatriation: Implementing the Native American Graves Protection and Repatriation Act. *CRM* 15(5):9-12.

Dr. Barbara Little is an anthropologist with a specialty in archeology in the Division of Cultural Resources, National Capital Region, National Park Service. She is developing the National Capital Region's archeological survey plan as part of the servicewide National Archeological Survey Initiative.

Preservation Resources

Reviews

***Idealists, Scoundrels, and the Lady: An Insider's View of the Statue of Liberty-Ellis Island Project*, by F. Ross Holland. Urbana: University of Illinois Press, 1993. xix +266 p. $39.95.**

Reviewed by Barry Mackintosh, Bureau Historian, National Park Service.

Partnerships between the National Park Service and the private sector, the subject of much recent emphasis, are nothing new. The provision of visitor accommodations and services by concessioners was authorized in the 1872 act making Yellowstone the first national park and was aggressively advanced by the Service's founding fathers. A partnership promoted the bureau's birth in 1916: Stephen T. Mather solicited contributions from 17 western railroads for *The National Parks Portfolio*, a lavish publication sent to congressmen and influential citizens to win support for the legislation creating the NPS. Among notable philanthropic partners, the Rockefeller and Mellon families have donated millions over the years for park lands and improvements.

Notwithstanding these precedents, the Statue of Liberty-Ellis Island project of the last decade marked the first substantial use of private money to restore major properties in NPS custody. *Idealists, Scoundrels, and the Lady* is Ross Holland's first-hand account of this pioneering partnership. Holland, a former NPS historian and associate director for cultural resources management, retired in 1983 to become director of restoration and preservation for the Statue of Liberty-Ellis Island Foundation. While there he kept a taped diary, which with key documents and personal interviews formed the basis for his book.

The foundation was one of several bodies collaborating with the Service to plan, finance, and execute the massive job of restoring the badly deteriorated Statue of Liberty for its centennial in 1986. Related projects included redevelopment of the rest of Liberty Island, restoration of the derelict main building on Ellis Island, and new museums on the two islands interpreting the history of the statue and American immigration. Given the complexities of the resources and the tasks, the mandate to complete work on the statue in time for a four-day extravaganza centered on July 4, 1986, and the differing views of the disparate parties involved, it is not surprising that all did not go smoothly.

A French-American committee responsible for design work foundered, as did a corporation licensed to sell commemorative objects made from discarded parts of the statue. Lee Iacocca lost favor with the Reagan administration and was dismissed as chairman of the commission planning the centennial celebration. A congressional committee and the General Accounting Office investigated alleged improprieties within and between the foundation and the NPS. Architects, corporate representatives, politicos, fundraisers, and bureaucrats bickered. Amid all the acrimony, Holland's scoundrels seemed destined to prevail over his idealists.

Yet the foundation ultimately managed to raise more than $350 million, and the resulting work was deservedly acclaimed. "Since the project accomplished its mission and the statue's virtue was not injured," Holland concludes, "the public-private cooperation, as reflected in this project, has to be listed in the success column, and it could work in another project, if the mistakes of this project are guarded against and the lessons learned are taken to heart." Those considering future private-sector partnerships of anything approaching this scale would do well to read his book and heed his advice.

***Landmark American Bridges*, by Eric DeLony. American Society of Civil Engineers (ASCE), 1993. I-VIII + 150, Bibliography, Index, 128 illustrations.**

Reviewed by Richard Sanders Allen, research consultant in Lewiston, ID, and 1992 ASCE History and Heritage Award recipient.

Most Americans are apathetic about bridges and simply cross them as they come to them. There is a great lack of awareness concerning these utilitarian, but highly interesting structures. Yet, be it a simple stone arch or an immense and soaring span of steel, there is something about a bridge—its conquering of a barrier—that attracts the eye and lifts the spirit.

For aid in the enjoyment of seeing and knowing about bridges, one is bound to get vicarious pleasure in reading and perusing Eric DeLony's *Landmark American Bridges*, a recent publication of the American Society of Civil Engineers.

As chief of the National Park Service's HAER (Historic American Engineering Record), DeLony has been locating, listing, drawing, photographing and championing historic American bridge design and construction for two decades. As one of the nation's leading "pontists," he is, if anything, over-qualified to select and describe the true landmark bridges of America. With this volume he has done just that, and more.

The book's chronological coverage extends from the twin-arch stone Choate Bridge of colonial Massachusetts to the great modern suspension spans of New York and San Francisco. In between will be found a progression of bridges of wood, iron, steel, and concrete, with samplings of fixed, lift, swing, and bascule spans.

Pictured and described are bridges ranging from the obviously well-known (Brooklyn, Golden Gate), to the previously obscure (Stewartstown and

Oldest suspension bridge in U.S. designed by John A. Roebling, engineer for the Brooklyn Bridge, New York.

Hellertown, PA, and railroad structures of the far West). Each selected bridge is included for a good reason: to serve as a significant example (in some cases the only extant survivor) of a chapter, large or small, in the history of bridge engineering.

One cannot help but note the attrition of historic bridges. So many are gone, some even recently: victims of flood, fire, and the haste to take advantage of federal funds available for replacements, always at many times the cost of possible restoration and continued adaptive use.

Landmark American Bridges has many bright spots: bridges that have escaped the trend to "tear the old thing down," and still serve to illustrate the history of bridge design and development in the United States. The evolvement of major truss types is shown, with a number of rare and unusual patents illustrated. The old, seldom-mentioned cast iron bridges of New York City's Central Park are brought to our attention, as are the beautiful concrete arches of the Oregon coast.

Throughout, the bridge illustrations, insets, and line drawings are superb, and those in color are outstanding. In addition to revealing construction details, they evoke a sense of place and season. For added cohesion, there is a well-researched "time line" running through the pages, pin-pointing significant events in bridge building and engineering history from 1570 to the present.

The key word here is found in the title. This is indeed a much-needed landmark publication.

Reclaiming the Past: Landmarks of Women's History, edited by Page Putnam Miller. Bloomington: Indiana University Press, 1992. 223 pp., + index.

Reviewed by Jannelle Warren-Findley, Arizona State University at Tempe.

Breaking new ground from a number of perspectives, a women's landmark study, *Reclaiming the Past: Landmarks of Women's History,* is just off the press. After more than a decade of calls for such a work, representatives of the National Park Service (NPS), the Organization of American Historians, and the Coordinating Committee for the Promotion of History signed a cooperative agreement in 1989 to write this work.

The cooperative agreement, as Miller notes in her important, comprehensive introduction, specifically called for a project "to broaden public support for historic preservation by involving historians and their professional organizations in the study, identification, nomination of, and the dissemination of information about, potential National Historic Landmarks on the role of women in United States history." (p. 16) The collection, thus, is both a work of the history of women's experiences in the United States and a policy document which presents the history of a previously underrepresented group in historic preservation lists based in new social and cultural history models.

Miller's essay, which surveys the intersections between preservation theory, women's history in the United States, and American public policy relating to historic sites, sets the context and terms for the collection of essays to follow. The starting point for the work specifically can be traced to the published volumes which accompanied National Historic Landmark theme studies in the 1960s and 1970s, but Miller hopes in *Reclaiming the Past* to develop a new model to go beyond those older efforts. In carrying out Congressional wishes that the National Historic Landmark program work out "an ongoing and substantial cooperative effort with the major professional and scholarly societies" (p. 22), this study relied on specialists in women's history outside of NPS to create the historical context within which to evaluate and potentially to manage NHLs reflective of women's experiences. As Miller points out, these are pioneering essays, for little previous work has focused on the built environment of women's lives.

And like all pioneering efforts, the results from the point of view of examining the intersection of subject and object are somewhat mixed. Writing about the built environment without immediate contact with the buildings or the landscape is as difficult as writing about music without sound. Those scholars like Gail Lee Dubrow, writing on "Women and Community" and Helen Lefkowitz Horowitz, writing on "Women and Education," who have actually worked with buildings as sources of historical information and insight, fare best at integrating the material culture into the historical context. Dubrow emphasizes one perspective which all the authors attempt to include by casting a wide net for community-based activities. Her flexibility of expectation leads to accounts of various racial groups that provide a model for those wishing to do other than elite, Anglo history.

Other essayists provide information about various topics from various perspectives which will be useful for workers in the field of historic preservation and cultural resource management. Barbara J. Howe defines architecture broadly to include the origins of the historic preservation movement and discussions of domestic design as well as the formal world of public and private buildings. Barbara Melosh chooses to work primarily with women in the arts whose efforts can be examined from a feminist reinterpretation, thus (admittedly) slighting the performing arts. Buildings, sites, and landscapes related to aspects of the performing arts and the ensemble nature of much performance beg for more attention than they are given here. Joan Hoff on politics, Jean R. Soderlund on religion, and Lynn Y. Weiner on work, provide important contextual information, even when the writers' immediate sense of the everpresent built environment is less fully developed. Awareness of the complexity of social and cultural interactions and relationships in the United States shapes each essay and provides a rich and multi-layered context for site investigation and analysis. These authors broke new ground, and American history, historic preservation, and cultural studies will be the richer for it.

On the other hand, the circumstances within which the studies were made limits, to some extent, the broadest possible context for this work. Gail Dubrow recognizes the danger of doing "king and queen history" when she observes that "the ubiquitous tendency to save only historic houses associated with notable individuals obscures creative possibilities for commemorating the history of African American women at sites of their collective accomplishment and activity." (p. 95) This is true for much collective activity in all fields by women of all ethnic groups. And the tendency, even in *Reclaiming the Past,* is to document most completely the built environment that reflects individual accomplishments of notable women of each group and class.

Moreover, current policy requirements for nomination to the nation's historic lists have a tendency to favor buildings of notable architectural merit, actively discourage structures that have undergone change, and have difficulty dealing with compartmentalized or partial sites. As Dubrow notes in her essay, "Substantial tangible resources are likely to be revealed in future surveys by historic preservation planners, yet their architectural form and character may vary. Emerging scholarship on the history of women in Native American, Asian American, and Chicano/Latino communities will open other new possibilities for historic preservation...." (p. 102) The frustration of trying to account for sites of importance that were found in apartment buildings or the upstairs of social clubs, that lack architectural style or that have been altered over the years led one of my graduate students in preservation to reject the elite sound and established standards of the National Landmark Program or the National Register of Historic Places and to propose another official list to be called the National Register of Significant Stuff[1] to allow for

*(**Resources**—continued on page 30)*

(Resources—continued from page 29)

their inclusion.

But even significant stuff usually has to be physically present to be accounted for in official lists. Sites without structures can sometimes qualify as landscapes, but demolition has taken a terrible toll on sites of importance to racial and ethnic groups and other outsiders in the nation's past. And many activities undertaken by women (as well as men, for that matter) took place in locations not easily categorized in official documents: kitchens, upstairs meeting rooms, upstairs floors, apartments, Sunday school rooms. These locations show up in fewer numbers in official historical nominations than their importance might indicate, and thus appear less frequently in these essays.

On the whole, however, the published results of the women's landmark study offer the field of American history and historic preservation new challenges and new perspectives. The book is simultaneously a professional, peer-reviewed history study and a policy document which proposes a new approach to history and cultural resource management in NPS and, by extension, throughout the federal government. As such, it reflects the difficulties inherent in applying new social and cultural approaches to established governmental regulations. Yet, on the whole, the study shows the really exciting insight and understanding which can be produced by the combining of sophisticated historical context and tangible resources. *Reclaiming the Past* provides a fresh, complex, multi-faceted model for theme and context studies and should receive wide attention throughout the preservation establishment.

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[1] Marcia Johnston, "Historic Preservation Policy," mss, May 1993, Graduate Program in Historic Preservation, Department of History, Arizona State University.

National Archives Inventory

The National Archives has published "Records of the Office of Public Buildings and Public Parks of the National Capital" (Inventory No. 16), compiled by Mary-Jane M. Dowd. The inventory describes National Archives Record Group 42, which includes records from 1790 to 1933 relating to the creation, location, development, and early governance of the City of Washington and the District of Columbia. The inventory guides researchers to material that is rich in the history of the Federal City's formative years. Record Group 42 includes records of Presidents Washington, Adams, Jefferson, and Monroe, as well as those of later presidents. Also in the record group are letters, reports, and drawings by some of Washington's foremost urban and park planners, architects, and sculptors, including Pierre L'Enfant, Benjamin Latrobe, Robert Mills, and Daniel Chester French.

The publication of this inventory is part of a continuing effort by the National Archives to make historical materials more widely available to the public. Copies of the inventory may be obtained at no cost by writing the National Archives, Fulfillment Branch (NEDC), Customer Service Section, 8700 Edgeworth Drive, Capitol Heights, MD 20743-3701. For further information about availability, call 800-788-6282.

Conserve O Gram Series to be Reissued

Conserve O Gram

All NPS parks and centers that have responsibility for museum collections will soon be receiving the updated *Conserve O Gram* series. Produced by WASO Curatorial Services Division with the assistance of the Harpers Ferry Center Division of Conservation, the forthcoming publication is a new edition of the series that began publication in 1975. Since its beginning, the series has been a source for up-to-date technical guidance addressing a wide variety of collections management issues. Printed on bright yellow paper and named *Conserve O Gram* to depict "a quick response to what might often be emergencies," it was intended as timely, informative guidelines that applied to similar situations that curators and other collection caretakers would find in dealing with museum collections. As the series evolved, it also emerged as a valuable liaison to museums outside the NPS, and until recently was distributed free of charge through regional curators.[1]

In late 1991, the *Conserve O Gram* committee was re-established to begin the process to improve the series by evaluating each of the current leaflets (89 were in print by then), selecting the issues to be revised, suggesting new topics, contacting authors, and writing and reviewing leaflets for the new series. A leaflet was dropped if its content was obsolete or if it had been incorporated into a more permanent document such as the NPS *Museum Handbook*. Another challenge that the *Conserve O Gram* committee accepted was to create a new look for the series: new colors, new masthead, column format, and new binder.

The result is a renewed series of 56 leaflets. Topics retained from the old series cover techniques and materials for storage and exhibition of museum objects such as baskets, feathered headdresses and soft-sided hats and caps, paintings, paper objects, and rare books; curatorial health and safety updates on ethylene oxide and arsenic; information for evaluating and describing object condition, such as detection and prevention of mold and mild; and sources of assistance including bibliographies. New topics include monitoring the museum environment with dataloggers, labeling museum objects with Acryloid B-72 lacquer, monitoring and mitigating radon from fossil vertebrates, and preserving magnetic media. Four to six additional leaflets will be published semi-annually.

Credit for the newly revised series goes to the *Conserve O Gram* committee members (Harpers Ferry Center conservators Al Levitan and Dan Riss; Regional Curator Dale Durham; Chief Curator Ann Hitchcock; and Washington Office staff curators Tony Knapp, John Hunter, Allan Montgomery and Virginia Kilby) and the many authors and reviewers who gave generously of their time throughout the 22-month-long project.

Due to the many requests from outside the NPS, Curatorial Services Division has turned to the U.S. Government Printing Office to manage the distribution of the publication. Non-NPS readers can now obtain the *Conserve O Gram* series as a three-year subscription for $56 (GPO List ID number COG) from the Superintendent of Documents, GPO, P.O. Box 371954, Pittsburgh, PA 15250-7954, FAX 202-512-2233.

The *Conserve O Gram* committee welcomes contributions from both NPS and non-NPS readers. These can be in the form of comments on the content or value of a particular issue; suggested topics for new issues; recommendations for authors who may have a particular expertise on a collections management topic, technique or procedure; and outlines or drafts for new leaflets. Before submitting a draft please contact Curatorial Services Division to discuss topic and required format. Send the above to Curatorial Services Division, Harpers Ferry, WV 25425, (304) 535-6410.

—Virginia Kilby
Staff Curator
Curatorial Services Division

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[1] From the forthcoming administrative history, *Museum Curatorship in the National Park Service, 1904-1982* by Ralph Lewis (Washington, D.C.: U.S. Government Printing Office) pp. 206-207.

Bulletin Board

CFC for Parks

The National Park Foundation, the official private foundation of the National Park Service, will participate in the Combined Federal Campaign (CFC) this year as a member of Independent Charities of America. Government employees may choose #0285 to pledge their support for the national parks. For more than 25 years, the Foundation has funneled private sector donations of money, land, artifacts, and buildings into the national parks.

For more information, contact Anne MacGlashan, Director of Development, National Park Foundation, 1101 17th Street, NW, Suite 1102, Washington, DC 20036; 202-785-4500.

National Park FOUNDATION

RESTORE Offers Courses

RESTORE offers a range of educational programs and services including workshops on architectural conservation techniques, technical clearing house for architectural conservation, videotape series on architectural conservation techniques, and an architectural conservation library.

RESTORE is a not-for-profit educational corporation which offers a range of educational programs related to building conservation and preservation maintenance technology to those in the building industry.

For further information about the RESTORE programs, contact Jan C.K. Anderson or Anne B. Jamieson at RESTORE, 41 East 11th Street, New York, NY 10003; Phone: 212-477-0114 or Fax: 212-475-7424.

NPS Handbook on Lowell

Lowell: The Story of an Industrial City is a handbook produced by the National Park Service which is a guide to Lowell National Historical Park and Lowell Heritage State Park in Lowell, MA. Lowell was America's first large-scale planned industrial community and is celebrated for its innovative textile technology. The book is both an illustrated account of the changing fortunes of Lowell's industry and its working people and a guide to surviving sites. Written by historian Thomas Dublin, it takes a close look at the industrial capitalists and the workers—both Yankee women and immigrant families—who produced millions of yards of cloth through cycles of prosperity and decline.

The Lowell Handbook (No. 140) can be purchased for $4.95 through the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. For more information, contact Marty Blatt, Supervisory Historian at Lowell NHP, 508-459-1027.

US/ICOMOS Intern Programs

US/ICOMOS (the United States Committee, International Council on Monuments and Sites) is seeking U.S.-citizen graduate students or young professionals for paid internships in Great Britain, Canada, Lithuania, Poland, France, India, Israel, the Slovak Republic and other countries in summer or winter 1994. Participants work for public and private nonprofit historic preservation organizations and state 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 or site interpretation/museum studies.

Applicants must be graduate students or young professionals, 22 to 30 years old. Applications are due by March 1, 1994. For further information and to receive application forms, contact: Ellen Delage, Program Officer, US/ICOMOS, 1600 H Street, NW, Washington, DC 20006; phone: 202-842-1862, fax: 202-842-1861.

Harpers Ferry Center Seminar: The Power of Exhibit Lighting

As part of its renewed emphasis on museum and exhibit lighting, Harpers Ferry Center presented a lighting seminar September 21-24 for exhibit designers, producers, and conservators. A distinguished roster of speakers from the museum field and industry spoke to issues of exhibit lighting design, object preservation, energy conservation, and product development.

Presenters included Gordon Anson, Chief Lighting Designer, National Gallery of Art; Steven Weintraub, Conservation Scientist; Christopher Cuttle, Head, Graduate Lighting Studies, Rensselaer Polytechnic; Hank Grasso, Senior Exhibit Designer, American History Museum; Frank Florentine, Lighting Designer, Air & Space Museum; and Steven Butterworth, Head of the Energy Task Force, NPS Northwest Regional Office.

A forthcoming *CRM* article will detail the progress in lighting at Harpers Ferry Center, its newly formed lighting committee, and its future impact on design, energy consumption, and artifact conservation.

—Larry V. Bowers
Division of Conservation
Harpers Ferry Center

Accessibility Video

Entrances to the Past, a new video on the subject of accessibility and historic preservation, is available through Historic Windsor, Inc. It was produced by the Preservation Assistance Division of the National Park Service and the Office on Accessibility, with the assistance of the Albright Training Center, National Park Service. Aimed specifically at state and local governments seeking to understand the implications of The Americans with Disabilities Act of 1990, the video focuses on the dual need to achieve reasonable access solutions for mobility-impaired individuals and the need to save historic buildings for future generations. The video was funded by the NPS Cultural Resource Training Initiative. When ordering *Entrances to the Past* ($13.00), indicate closed caption (no text on screen) or open caption (text on screen). Also available is *Accessibility and Historic Preservation Resource Guide* ($50.00). Purchased together, the video and *Resource Guide* package cost $55.00.

To order or for more information, contact Historic Windsor, Inc., P.O. Box 1777, Windsor, VT 05089-0021; 802-674-6752.

Restoration 93

Under the general theme of "Preservation and the Real World," **Restoration 93** will be held December 6-8, 1993, in Boston. It will be the largest trade event ever held in North America for the preservation field. Sponsored by the Association for Preservation Technology International (APT), the conference will promote the exchange and dissemination of technical and professional information.

For more details, contact the show director, Steven Schuyler, phone: 617-933-9699; fax: 617-933-8744.

Historic Houses Seminar

A seminar entitled, *The Future of the Country House: Conservation and Repair of Historic Houses*, will be held November 22-24, 1993, in York, England. The three-day seminar, sponsored by the Institute of Advanced Architectural Studies, is aimed at bringing together experienced professionals to advise on the care of historic houses.

The Institute, which is a postgraduate department of the University of York, is now the only architectural school of continuing and postgraduate education in the United Kingdom with some 80 students working toward higher degrees and reaching more than 3,000 participants annually through its events and short course programs. In addition to students from the UK studying both full and part-

*(**Bulletin**—continued on page 32)*

*(**Bulletin**—continued from page 31)*

time, the student body of the Institute has a large international representation. As well as postgraduate degree opportunities, the Institute also has active research and development programs. For more information, write to the Institute of Advanced Architectural Studies, University of York, The King's Manor, York Y01 2EP, England.

Fort Union Fellowship

The Friends of Fort Union Trading Post and the Fort Union Trading Post National Historic Site announce a $1,000 Fort Union Fellowship for 1994. This annual fellowship is intended to support a qualified researcher wishing to explore and produce an article or monograph on an aspect of Fort Union Trading Post history. The fellowship is open to all applicants except employees of the Fort Union Trading Post NHS.

Applications must be postmarked no later than February 1, 1994, and be sent to the Fort Union Fellowship Committee, Fort Union Trading Post NHS, RR 3, Box 71, Williston, ND 58801. Additional information can be obtained by contacting Paul Hedren, Chair, Fort Union Fellowship Committee, at the above address or by telephone at 701-572-9083.

BRIEFS AND TECH NOTES ON A FAST-TRACK TO YOUR DESK!

The National Park Service series, *Preservation Briefs* and *Preservation Tech Notes*, have long provided useful information on preserving and maintaining historic properties. Architects, property owners, contractors, and building managers have found both series indispensable reading. Now, thanks to the Government Printing Office's Standing Order Service, these popular leaflets can now be sent to you—directly and at low cost—as soon as they are published. If you prefer, you may still obtain Briefs as currently sold by GPO.

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