

## CRM BULLETIN

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# Oral History A Challenging and Provocative Experience

Edwin C. Bearss

During the past 22 years, I have been involved in six major oral history projects. Before June 1968, my research assignments in my career as a public historian--which dates to a March 1955 entry on duty with the Department of the Army's Center of Military History, followed by a September 1955 transfer to the National Park Service--had concentrated on events and the lives of people of the 19th century and first quarter of the 20th century. These undertakings did not call for the use of oral history in my research. Consequently, I was unfamiliar with oral history's ability to provide an invaluable database for interpreting and managing cultural resources integral to or associated with the National Park System whose focus is on the years since the mid-1930s. As a historian who had spent years in documentary research in archives, libraries, museums, newspaper morgues, and tramping battlefields, I neither understood nor appreciated the value of oral history. In the years since 1969, I have become a "true believer."

road to becoming a "true believer" has at The times been rocky, and I appreciate this opportunity to share my learning experiences with readers of the *CRM Bulletin*. My initiation to doing oral history was on a hot June day in 1968, at the Trinity Site on the Army's White Sands Missile Range, a National Historic Landmark. Accompanied by Jack Turney, then superintendent of White Sands National Monument, I drove from Alamogordo to Trinity, the site of the world's first atomic explosion, where we met with four scientists and engineers who had been associated with Robert Oppenheimer and the development of the bomb, site preparation, and detonation of the world's first atomic device, on the night of July 16, 1945.

For Jack Turney and me, this was an exciting and memorable day, as we listened while our four companions—Robert Krohn, Berlyn Brixner, John Manley, and Joe McKibben—relived, through their words, a world-shaking experience. Their words were recorded and have been transcribed, and will constitute an invaluable resource should the National Park Service at some future date become responsible for the management and interpretation of the Trinity Site.

My first oral history project taught me several invaluable lessons. These were:

- Steep yourself in the background and interests of the participants.
- Do not overextend yourself by both asking the lead questions and operating the equipment.
- Familiarize yourself with the recorder.
- Keep your questions and remarks succinct and to the point. History is not interested in your comments.
- After a long day in the hot, dry climate of the Jornada de la Muerta do not sit in an Alamogordo bistro and drink three margaritas before eating a late supper.

The next two oral history projects to come my way were those keyed to the Eisenhower National Historic Site (authorized 1967) and then the Lyndon B. Johnson National Historic Site (authorized 1969). Both of these projects, unlike the Trinity expedition, were programmed and funded as part of the NPS program to support interpretation and cultural resource management of these two new high-profile areas.

Because of the direct involvement of three dynamic and history conscious people-- President and Mrs. Lyndon B. Johnson and NPS Director George B. Hartzog--in adding the LBJ Ranch unit to the park and their appreciation of the importance of oral history, the Johnson oral history was given high priority by the Service. It was inaugurated in the autumn of 1972, but the untimely death of former President Johnson, in January 1973, cut short his direct participation after one taping session in the program. His legacy lives on in the LBJ Ranch Oral History Project because of the support of Mrs. Johnson, NPS Director Ron Walker, Southwest Regional Director Frank Kowski, and Park Superintendent Alec Gould. The project was continued, refined, and expanded, and became a model program with which I was associated from 1972 through 1981.

In March 1973, following President Johnson's death, Blair Hubbard of Harpers Ferry Center and I spent one week in the Texas Hill country taping interviews with key LBJ Ranch employees and longtime Blanco and Gillespie County friends and associates of the Johnson family. Cautioned by my Trinity experience and schooled by Blair Hubbard to make use of this exciting media to the best advantage, we worked well together. I conducted the interviews and Blair operated the recorder and monitored the audio impulses. In this way, the emotions and feelings of the person being interviewed would be of such quality that they add drama and feeling to the tape to be used in the park's audio interpretive stations. Before conducting the interviews, my practice was to first get to know the person we were to visit and learn something about his/her background and association with President Johnson or the area. This enabled me to build up a rapport with the interviewee. To illustrate the importance of this step, I will note that President Johnson at his first meeting with Ron Walker, who in early January 1973 replaced George B. Hartzog as Director, remarked that "Bearss knows more about Grandfather and Grandmother Johnson and my ancestors than I do."

The tapes of the interviews were carried back to Harpers Ferry by Blair Hubbard, master copies made for retention by the Center, and a copy returned to the park. Superintendent Gould assumed responsibility for securing from the persons interviewed releases for the Service to either use or restrict information found on the tapes.

During the ensuing years, Superintendent Gould and his park historian John Tift continued to give priority to and to expand the Site's oral history program. Creatively employing both National Park Service monies and grants from Southwestern Monuments Association, they hired Konrad Kelley, a colorful anthropologist, Episcopal padre, and folklorist, to continue and broaden the scope of the oral history project to cover three generations of the Johnsons and their Hill country years. It was my pleasure to return to Texas a number of times and work with the Reverend Kelley and Historian Tift to document, through oral history, the cultural resources and interpretive history at the park, which in 1980 was redesignated the Lyndon B. Johnson National Historical Park.

Mrs. Johnson, Johnson friends, employees, and associates, and the friendly people of the Hill country were cooperative and the park's oral history collection, by far the largest and most comprehensive in the Service, now numbers 425 interviews—one of which, the 5-day tour and documentation of the LBJ Ranch with long-time ranch foreman Dale Malechek and his wife, Jewel-- consists of 26 reels. Mrs. Johnson enthusiastically endorsed and participated in the project. She spent many hours walking through the Texas White House and its grounds, recording their history and her memories of them and their associations.

When the Texas White House and its grounds are open to visitation, future generations will listen in rapt attention as Lady Bird Johnson, a gifted and great First Lady, shares with them her recollections of life on the Pedernales.

The initial Eisenhower oral history project, consisting of 20 interviews, was programmed and accomplished during the late spring and summer of 1973. The Harpers Ferry Center hired, by contract, a technician to operate and monitor the recorder, and I conducted the interviews. Preparation in 1970 of the *Historic Resource Study and Historical Base Map* of the Eisenhower National Historic Site had provided me with a good working knowledge of the Eisenhowers' Gettysburg years and excellent contacts. The staff at the Gettysburg National Military Park, especially Superintendent Jerry Schober, Park Secretary Betty Dietz Null, and Historian Tom Harrison made arrangements for recording sessions with John Eisenhower and David Eisenhower, the interview with David taking place in the White House Library.

The Eisenhower project, because of limited funding, was regrettably far less comprehensive than the Johnson project. The death of President Eisenhower, in March of 1969, prevented his participation and support, and in 1973 there was no Director Hartzog to take a special interest in the project. At Eisenhower, Secret Service Agent Herb Dixon, in charge of Mrs. Eisenhower's security, was not a friend of oral history or the National Park Service. He used his position to discourage a session with Mrs. Eisenhower, to prevail on Sgt. John Mooney and his wife not to participate, and refused to allow either himself or his agents to be interviewed.

Only after Secretary of the Interior Rogers Morton personally contacted Mrs. Eisenhower did she agree to participate in the program. When Superintendent Schober contacted agent Dixon to perfect arrangements, he was told that contract technician Dick Sylvester, who was heavily bearded, could not participate, as he looked like a beatnik. Harpers Ferry Center therefore assigned a cleanshaven staffer--Fred Palm--to record the interview. Accompanied by Superintendent Schober, we spent several hours on the grounds of the Eisenhower house as Mrs. Eisenhower, a shy and gracious lady, shared with us and posterity her recollections of her and Ike's Gettysburg years. She then led us on a walk through the downstairs rooms, discussing the furnishings and their significance to the family.

Our session with Mrs. Eisenhower closed down the Eisenhower oral history project until after Mrs. Eisenhower's death on November 1, 1979, when the property was opened to visitation and a second phase of the project instituted by the Park.

The Johnson and Eisenhower oral histories are particularly significant because, by the 1950s, the telephone had increasingly replaced the written word and the paper trail in providing grist for historical research, and most documents relating to the occupation of these sites by the First Families are classified and not available. While the Eisenhower and Johnson Presidential Libraries and the University of Texas have undertaken comprehensive oral history programs, their focus is on Eisenhower's and LBJ's public careers and not their Gettysburg and Hill country years.

After I became the Service's Chief Historian on November 1, 1981, I assumed my direct participation in major oral history projects was over, but fortunately I was mistaken. On May 1, 1985, William Penn Mott, Jr., became the Service's 11th Director. A former 1930s National Park Service employee and the head of the California State Parks during then-Governor Ronald Reagan's administration (1969-1977), Bill Mott was a dynamic, hands-on Director, with a deep appreciation of the value of interpretation and oral history in promoting the parks and building constituencies. Because of Director Mott's interest, his unconventional but innovative approach to the perceived role and function of the Washington staff, and my experience, I found myself, much to my delight, again thrust into project-related oral history.

When the House Subcommittee on Parks and Public Lands in May of 1985 was conducting its hearing on Representative Richard B. Ray's bill to establish a Jimmy Carter National Historic Site, Director Mott, after listening to the testimony and remarks of the proponents of the site, decided to send me to Plains, Georgia, to inaugurate an oral history project with President and Mrs. Carter and their long-time friends and neighbors.

In mid-December 1985 I traveled to Plains. Superintendent John Tucker of Andersonville National Historic Site, key members of his staff—Chief of Interpretation and Visitor Services Fred Sanchez and Historian Jim Small—and the good people of Plains went out of their way to make this a productive and exciting week. A large number of oral histories were recorded and important bridges to the community built, which, in 1988, following the establishment of the Jimmy Carter National Historic Site in December 1987, led to what I consider to be the most exciting, successful, and sophisticated oral history project yet undertaken by the Service. This broad statement is based on these reasons:

- President and Mrs. Carter were co-participants, and the interface and dynamics between them added an exciting dimension. There are times that their memories of the past and sequences of dates vary and this makes for excellent interchanges.

- Two media were employed--Fred Sanchez video-taped the session and Jim Small manned an audio recorder.

- The Carter oral histories, besides providing the grist for the Park's interpretive and cultural resource management programs, provided invaluable insight into how President and Mrs. Carter view park resources, both tangible and intangible. A visit to Jimmy Carter's Boyhood Home in Archery documented on film the President's deep attachment to this home and its significance. Before then, NPS plans had given it a lower profile.

I have already said too much about the Carter oral history project. For a better appreciation of the planning and work that ensured its success, I call your attention to my colleague Jim Small's article.

It is through the efforts of the troops in the front lines--outstanding professional people such as Superintendent Tucker, Chief Ranger Sanchez, and Historian Small, and those with whom I worked at the Johnson and Eisenhower sites--that we owe the success of these efforts, and because of them the Service has achieved its long-held reputation as the most admired Federal agency.

In a future issue of the *Bulletin*, I plan to share with the readers the story of the two other oral history projects that Director Mott assigned to me, following his visits to Biscayne National Park and War in the Pacific National Historical Park. The latter featured interviews with Guamanians and Saipanese who experienced World War II in the Pacific in all its violence and frightfulness.

Ed Bearss is the Chief Historian of the National Park Service.

# A Visual Recording

Jim Small

Traditionally, oral histories have been captured onto audio tapes; however, this medium is limited only to sound/voice documentation. In May and December of 1988 Chief Historian Ed Bearss and the staff at Andersonville/Jimmy Carter National Historic Sites conducted a series of oral history interviews with President and Mrs. Carter. The objective was to capture the remembrances of the Carters for the future development of Jimmy Carter National Historic Site.

The Jimmy Carter National Historic Site is new to the National Park System, signed into public law in December 1987. Its significance is the association of the key sites and structures with Jimmy Carter during his life and the history of a small rural southern town in the years 1924-1976.

Working with a living president and recording his remembrances provided both unique and boundless opportunities. The park staff decided early in the planning stages to take full advantage of this situation. With permission from the Carters, the staff planned to record the live interviews on both reel-to-reel and VHS video tapes. We had to assure the Secret Service protective staff that the safety of the former First Family would not be compromised; we had to time the interviews so that both President and Mrs. Carter would be present; and we had to carefully select the audio/ visual recording equipment for this one shot opportunity to get the Carters on tape.

We satisfied the Secret Service's requirements by not filming sensitive items such as surveillance equipment and agents. To arrange for both Carters to participate, we scheduled the interviews six months in advance and continued to work closely with the Carter office in preparation. The Harpers Ferry Center provided the advice and necessary audio recording equipment. The site was fortunate enough to have a professional series camcorder in its audio/visual inventory.

The Carters were involved in the interview preparation and briefed about the objectives prior to the interview. Also, the tapes produced by the interviews would be made available only for park use for research and interpretive programmings. The future public use of the tapes will be discussed during the creation of the life estate agreement between the National Park Service and President and Mrs. Carter. In the meantime, the Carters will retain ownership and copyright to the tapes to avoid their being placed in the public domain.

Conducting an oral history interview allows for the collection of personal remembrances of events, dates, and places. However, we advise that caution be used when relying on interviews as primary sources because time elapses since the event and memories are selective. We also learned that the interviewer can control the responses through the types of questions asked or the mannerisms presented.

Chief Historian Ed Bearss served as the interviewer and the site's staff took charge of logistics and technical assistance. Prior to the interview, and with permission from both the Secret Service and the Carters, we conducted a pre-interview visit to the Carter home in Plains, Georgia. The focus of this visit was to familiarize ourselves with the furnishings, physical layout of the furniture and available lighting, including the location of electrical outlets for our equipment.

Our strategy was to have a low NPS presence during the interviews and above average familiarity with the equipment that would be used. We wanted to capture the interview in as much a natural state as possible. The reel-to-reel tape recorder and operator would be placed out of view of the Carters. Microphone cables from both machines would be consolidated whenever possible. The video recording process would operate with minimum lighting using flood lights only when the light level prevents a clear image.

The results of our planning and execution were surprising. We achieved the visual and sound quality that we expected; however, the cultural data collected surpassed our

expectations. Captured on the video tapes was the interaction between President and Mrs. Carter; facial expressions, gestures and a visual interactive inventory between the Carters and their household belongings.

The majority of the interviewing took place inside their home. It covered early politics, life in Plains, the military, and the post-Presidency period. Also, the Carters provided an architectural history of the only home that they have ever owned and personalized tour of the house. We also obtained information concerning the creator and donor of various objects and furnishings.

Though not fully appreciated now, in years to come this material will greatly assist those developing furnishings reports, documenting objects, and piecing together the daily routine of the President and Mrs. Carter.

The interviews continued outdoors and involved a tour of the grounds surrounding the house, a visit to the school that both President and Mrs. Carter attended, and his boyhood home. Chief Historian Bearss conducted a questioning sequence that took the Carters back in time. They vividly described the school and its staff, reinforcing the cultural importance that the school had on this rural community. However, the most enlightening portions of the interviews took place at the boyhood home.

We were unsure as to the level of importance that the boyhood home had on the development of President Carter's political and human rights ideologies. A review of the visual interview at the boyhood home quickly identified its importance. President Carter's eagerness to investigate the house and outbuildings, his clear recollections of daily life on the farm, and remembrances of his parents were captured by the video camera and provided solid documentation that this site deserved a higher level of priority than first realized.

More than 15 hours of taped audio/visual recordings were made during those two appointments in 1988. The results were eight video tapes and 27 reel-to-reel tapes. The cultural resources material gained is abundant. The tapings have already been put to use in creating an audio driving tape tour of Plains and currently under production is a video tour of the Carter home for use in the visitor center. A team from the Historic American Buildings Survey has also used the recordings for visual references of the current home and boyhood home.

There have been drawbacks. All the planning we did for this assignment still left some areas incomplete. We tried to accomplish too much at one time. The Carters became fatigued and hurried toward the end of the process. We also shot still photography during the interviews. The flash from the camera disturbed the image captured on the video. There are objects and furnishings that deserve a closer examination for months. This will allow the camera detailed documentation. As a learning experience, we gained a wealth of technical and practical knowledge -to capture seasonal and personal from both the strengths and weaknesses of our production.

The end results have been productive and a visual media policy has been developed to guide the staff in the future production, collection, and storage of video, sound and still photography materials. The Carters have agreed to permit a video inventory of their home every 27 months. This will allow the camera to capture seasonal and personal changes of objects and furnishings inside of the home. Also, a landscape visual inventory will be conducted three times a year to document vegetation growth. We have discovered the value of video recordings as a tool for cultural resources management.

Jim Small is a park ranger/historian at Jimmy Carter National Historic Site, GA.

# Historical Research in the National Park System, 1989 Corrections

Memo to the Editor

I commend the idea of publishing an annual listing of park-related historical research carried out by NPS employees or supported by the bureau. It provides a useful overview of work in progress throughout the system and also a certain degree of professional recognition to those involved in the research.

However, on reviewing the 1989 listing, I was disappointed to find the reports produced by the Division of Historic Furnishings treated, for the most part, as if they had no titles and were produced anonymously. Of the six people in this office who were working on historic furnishings reports in FY '88 and '89, only two were personally credited: Carol Petravage (Women's Rights) and me (Sagamore Hill and Ansley Wilcox House). Linda Greene (DSC) also made the cut for her Historic Furnishings Study for Scotty's Castle. The following projects were noted in your listing, but most of them with no indication that they were historic furnishings reports or that individual historians/curators were preparing them:

## **Apostle Islands National Lakeshore**

David H. Wallace, HFC, Keeper's Quarters and Fog Signal, Raspberry Island, in progress.

## **Cape Hatteras National Seashore**

David H. Wallace, HFC, Little Kinnakeet Life Saving Station, in progress.

David H. Wallace, HFC, Principal Keeper's Quarters, Hatteras Light Station, in progress.

## **Chiricahua National Monument**

David H. Wallace, HFC, Faraway Ranch, 1987.

## **Christiansted National Historic Site**

Jerome A. Greene, DSC, and William F. Cissel, CHRI, Fort Christiansvaern, 1988.

## **Cumberland Island National Historic Site**

Sarah M. Olson, HFC, Plum Orchard, 1988.

## **Edison National Historic Site**

Leah Brodbeck Burt, EDIS, Glenmont, in progress.

## **Eleanor Roosevelt National Historic Site**

Katherine L. Menz, HFC, Val-Kill, 1986.

## **Fort Larned National Historic Site**

Clifford Soubier, HFC, Barracks, in progress.

Clifford Soubier, HFC, Hospital, Officer's Quarters, and Commissary Storehouse, in progress.

**Fort Raleigh National Historic Site**

Elizabethan Room (not a research project)

**Harry S Truman National Historic Site**

Sarah M. Olson, HFC, Truman Home, 1986.

**Hot Springs National Park**

Carol A. Petravage, HFC, Fordyce Bathhouse, 1987.

**Petersburg National Battlefield Park**

Donald C. Pfanz, PETE, Grant's Cabin, in progress.

**Harpers Ferry National Historic Park**

Carol A. Petravage, HFC, Building 40, in progress.

**Manhattan Sites**

Katherine L. Menz, HFC, Hamilton Grange, in progress.

**Martin Luther King, Jr. National Historic Site**

David H. Wallace, HFC, Birth Home, in progress.

**Valley Forge National Historic Park**

John P. Brucksch, HFC, Varnum's Headquarters, in progress.

Katherine L. Menz, HFC, Washington's Headquarters, in progress.

**Voyageurs National Park**

David H. Wallace, HFC, Kettle Falls Hotel, 1988.

--David Wallace  
Staff Curator, Division of  
Historic Furnishings  
Harpers Ferry Center

# NPS' Super Database of Databases, COMMON, Where Are You Today?

Back in the early 1980s you may remember hearing talk of a new NPS super database that would contain much of the data and information that the Service collects and/or needs, and would be available to all field areas via computer. The new database was to be called COMMON. Well, COMMON where are you today?

Although evolving into something beyond the founder's original version of the system, COMMON is still alive, well and taking on new meaning. As the National Park Service is adjusting and growing, the Service's information management requirements are also adjusting and changing.

COMMON is evolving to keep pace with the continuous introduction of new computer technologies, at the same time, having to change with new NPS administrative demands. The original vision of COMMON, that of sharing data on one minicomputer, has been redesigned to be a central database receiving and sending data to and from microcomputers throughout the Service. Today, COMMON reflects this pragmatic need by the NPS programs, such as Natural Resources and Cultural Resources, for an information tool easily accessible throughout the Service.

COMMON is still an automated database system that contains basic, frequently requested information about each unit of the National Park System. The original and present objective of COMMON was and still is to provide an easily accessible source of servicewide summary information about parks to the largest possible audience. As stated above, the information includes a variety of administrative, natural and cultural resources data; but today, the system is not just summary data. COMMON has become more of a working management information system for tracking projects and submitting management reports for the NPS programs. COMMON is a collection of unique database systems. An example of this is the List of Classified Structures (LCS), a detailed inventory of all historic and prehistoric structures managed by the Park Service. It is an information tool that assists park managers in planning and programming appropriate treatment and recording decisions regarding listed structures.

The original vision of Common was that of

- modular design,
- an easy-to-use menu driven system,
- many users get on one computer system from anywhere in the U.S. and
- sharing of key data among parks and between the parks, regions & WASO.

The problem with this concept was that technology and telecommunication to support the third and fourth points were not fully implemented. The Service at the time used a Hewlett-Packard 3000 minicomputer with a limited number of communication lines (ports). In addition, the Park Service found out that it was very awkward and expensive for very remote parks to get onto (log on to) and stay on the WASO computer. To get around these problems, COMMON's designers explored using microcomputer technology which could distribute most of the processing and save on telecommunications costs.

Today, COMMON tries to take advantage of the versatility of the microcomputer and the power of the larger minicomputer. The Cultural Resource Management Bibliography

(CRBIB), an inventory of reports and documents that address park cultural resources, uses the versatility of the PC microcomputer for data entry, update, and local reporting. CRBIB passes all the data to the Hewlett Packard 3000 and uses the power of WASO's HP-3000 minicomputer for larger management report and cross region studies. The present COMMON still continues to use the user-friendly menu screen which allows NPS staff to quickly and easily retrieve information from the system. Information in modules like NPFLORA (park flora) and NPFAUNA (park fauna) can be easily retrieved by simply selecting from the reports menu one of many preprogrammed standard reports or by using a sophisticated interactive database management language for ad-hoc inquiries. COMMON also takes advantage of its modular design; for example, CRBIB module data can be looked at with the closely related LCS module data and/or any of the other COMMON modules data. As with the original COMMON, this combination of features gives users the ability to cross reference data and develop relationships that only they are able to imagine.

The future for COMMON will reflect the same pressures for better performance because of newer technology and changing demands by the NPS program areas. With the advent of FTS2000 telecommunications, COMMON will be not just a central minicomputer at WASO with many micro PCs remotely retrieving data, but could be a collection of minicomputers and micros all part of an on-line network forming a Servicewide distributed database. If in the future a module's functional requirements need the system to be completely distributed, the data could be stored and managed in the field and still be accessed by other parks, regions or WASO. Information will become truly a distributed and shared resource for all in the Park Service to use.

For more information regarding COMMON, contact Information and Data Systems Division on (FTS/202) 343-4441.

—Bill Brimberry, Decision  
Support Section

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# Preservation Technology Update

## Rising Damp in Historic Buildings:

### Diagnosis and Treatment

Sharon C. Park

While rising damp, a form of moisture damage, affects only a small percentage of buildings in the United States, it is nonetheless a difficult problem to diagnose and treat. The remedial work necessary to cure or control serious rising damp is in some cases **radical**, and should be undertaken on historic buildings only **after** thorough inspection and evaluation by a specialist. This inspection should include a complete understanding of the building, the site and the range of physical problems. This should be followed with diagnostic testing and laboratory analysis to verify field findings. The level of risk to the historic building both from the existing conditions and the impact of any remedial treatments should be fully evaluated.

Owners of many historic buildings have effectively handled rising damp problems, which are seasonal in nature, through added heat or increased ventilation during periods of noticeable dampness; an acceptable equilibrium is often achieved. The key in these situations is to be aware of how the building behaves and to know when repairs should be made. If the problem is serious enough that traditional methods of solving moisture problems are inadequate, more radical treatments may need to be considered. If there are a variety of preservation problems that need to be addressed a professional team of architects, engineers and specialists should be consulted.

#### **Rising Damp: What Is It?**

Rising damp is a result of ground moisture being absorbed into masonry foundations through the capillary pores found naturally in stone or in some porous brick. Ground moisture, once in the foundation walls, will rise from the subsurface until it finds a point at which it naturally evaporates from the material. Rising damp will usually create a horizontal band or tidemark three or four feet above grade (see photo 1). This horizontal line demarcates the wet from the dry elevation of the wall, and the moisture content will fluctuate within this band as a direct correlation of the amount of moisture in the ground. The level of rising damp will depend not only on the ground moisture, but the depth of the foundation wall, the thickness of the wall, the porosity of the material, and the presence of hygroscopic salts.

Because unwanted moisture in a building wall can cause serious damage leading to structural unsoundness, it is important to remove or control this moisture once it is determined that a problem exists. Moisture damage in a foundation wall can weaken the foundation itself, rot adjacent timbers, corrode metal anchors, contaminate interior plaster, and cause freeze-thaw spalling in above-grade masonry in cold climates.

Rising damp is only one form of moisture deterioration. It is often very difficult to determine the actual source of the moisture, be it from underground springs, a chronic high water table, poor soil drainage due to subsurface clay, improper site grading that misdirects surface runoff, or perhaps even an unsuspecting new source of added ground moisture: the automatic landscape sprinkler system. The source of moisture for rising damp is usually found at a depth below the footing of the masonry wall, resulting in the entire thickness of the masonry wall being saturated (see sketch). Lateral damp, on the other hand, is primarily a result of excess moisture at or near the surface of the building and affects the external face

of the foundation wall. Lateral damp is often resolved by less radical means than rising damp.

If rising damp is to be controlled, either the source of moisture must be removed or the capillary action of the masonry must be interrupted so that the moisture will not travel up the wall. In the 19th century, a row of moisture impervious slates was often placed just above the grade to stop the capillary action of brick or soft stone. This early attempt to control rising damp—by creating an impermeable layer within the masonry wall—provides the basis for contemporary practice. If rising damp is not effectively stopped and it is merely covered over, say with vinyl wallpaper on the interior or exterior waterproof coatings, the moisture will be forced even higher up the wall. This elevated level of moisture will begin to effect materials other than masonry, for example, wooden components of window and door frames. Once it has been determined that serious rising damp is present, remedial action must be taken.

Rising damp may be present if there is:

a noticeable horizontal line demarcating wet from dry masonry, often accompanied by spalling;

moisture saturated through the wall and not just on the outside surface;

moisture from the base of the wall (basement if there is one) to above the grade line;

moisture generally restricted to the first three or four feet above grade, not high up on the wall;

musty odor, bubbling plaster, dry rot, or other evidence of moisture deterioration.

If there are only irregular areas of dampness or splotches of moisture, or if the moisture appears high up on the building, then the problem is not likely to be rising damp. Because moisture deterioration has continued to be a major problem in historic preservation, the National Park Service published a technical report by Baird Smith in 1984 titled *Moisture Problems in Historic Masonry Walls; Diagnosis and Treatment* (see reading list). This publication provides an overview of the sources of moisture (weather, ground, and interior condensation), problems of moisture in masonry, the effects of hygroscopic salts on exterior efflorescence, types of moisture meters available for diagnosis and a brief discussion of remedial treatments.

### **Diagnosing Rising Damp**

In diagnosing rising damp, it is important first to **identify the problem** (wet walls, bubbling plaster), and then to **identify the source** (ground moisture, high watertable, no dampcoursing). This will usually require, in addition to a visual inspection, the use of on-site equipment such as moisture meters and off-site laboratory analysis of samples taken from the site. Rising damp, as previously stated, is relatively uncommon, but it is nonetheless difficult to isolate from other sources of moisture deterioration. Research conducted in England by the Building Research Establishment has determined that only about 9 percent of the moisture-damaged properties in the United Kingdom suffer from rising damp. Approximately 66 percent of the moisture damage is caused by internal condensation that is not properly ventilated. In the United States, where we have lower moisture levels from rainfall and other sources, rising damp is much less of a problem. In fact, it is generally restricted to low-lying coastal areas such as Galveston or Charleston and found in buildings of brick or soft sandstone that absorb moisture. One of the secondary by-products of rising damp is salt contamination of the masonry as ground salts (nitrites) and/or chlorides found naturally in the masonry or mortar migrate up through the foundation walls

along with the moisture. The diagnosis of rising damp often reveals hygroscopic salts. These salts often skew the results of diagnostic equipment used on-site, and for that reason, laboratory analysis is generally required.

Visual inspection is not adequate to diagnose rising damp. Moisture readings of the entire depth of the wall are necessary in order to verify that the wall is being saturated from below the footing and not just wet at the exterior surface. Lateral damp from surface ground moisture can often be treated with simple regrading or the installation of footing drains. Rising damp, on the other hand, occurs from below the footing and is not so easily treated. The quickest and most accurate method of detection of moisture within the wall is to use a calcium-carbide meter that chemically records, onsite, the percentage of moisture within a particular cored sample. While this is mildly destructive (the wall needs to be drilled), samples can be taken from the inside surface that are fairly small in diameter, and can be replastered, if the surface was originally plastered. If a carbide moisture meter of this type is not available, surface readings using a hand-held electric moisture meter can be used. These surface meters, however, may be recording surface condensation or the presence of leaking pipes; readings may be skewed due to salts at the surface interfering with the electronic circuit of the meter. If a moisture meter indicates that there is a 5 percent or greater amount of moisture in the wall, it will be necessary to undertake more conclusive tests and, in most cases, to select a treatment to eliminate, or at least control, moisture in the foundation wall.

At the time that the moisture content of the wall is being plotted, it is important that the composition of the wall be identified. For example, is the wall rubble-filled with irregular mortar courses? Is the building constructed using brick cavity walls? Does the mortar contain a high percentage of alkaline? Is there any evidence of moisture from other sources, such as leaking gutters, poor mortar joints, cracks in the masonry, interior condensation, etc.? Is there adequate ventilation in the building or crawl space to assist with the drying of only marginally moist walls? These **cyclical maintenance repairs** should always be undertaken **prior** to any major intervention in a building system. If a building has been treated for rising damp and a source of moisture penetration is deteriorated mortar joints, damage will continue to occur until those joints are properly repointed.

It is also important to understand that even after moisture has been controlled, walls that have been contaminated with hygroscopic salts will continue to have problems. If the interior surfaces were plastered, the damaged plaster, contaminated with these salts, will generally have to be removed and the wall replastered to avoid airborne moisture from reabsorbing into the plaster. Even with replastering the inside surfaces, these salts will continue to effloresce on the exterior masonry as the building dries out. Part of a good cyclical maintenance plan will address dry brushing of these salts periodically. Because residual salts will remain in the masonry above the treated site of rising damp, it is critical to consider the impact of any additional treatment to the entire building system. For this reason, the application of additional waterproofing treatments to the masonry exterior are not generally recommended.

## **Preservation Concerns**

Treatments for rising damp must be undertaken with care if a historic building is involved. The two key concepts of preservation are to **protect the materials of the building and to protect the historic character of the building**. Deteriorated materials should be repaired if possible and replaced in kind if those materials are still available. If a substantial amount of new material is introduced into a building or if the materials do not match the historic ones in form, appearance and detailing, then the historic character may be seriously altered and its integrity compromised. In dealing with rising damp, it is expected that there will be damp masonry, deteriorated mortar, bubbling plaster, perhaps some rotted flooring, and in areas with freezing temperatures there may be freeze-thaw spalling to the exterior masonry. In looking at remedial treatments, it is best to consider treatments that physically stop the moisture rising while still allowing the masonry to

breathe, and to install these treatments with minimal disfigurement of the building. If at all possible, the treatments should be reversible and not damage the historic materials.

The various treatments available to contain or control rising damp are not necessarily compatible with the stated criteria for historic preservation. For example, many of the treatments can be visually disfiguring to the building as a result of drilling holes on the exterior for chemical injection. In addition, the treatments may not be reversible; when some chemicals are injected into masonry materials, the properties of these materials may change. What is significant about the treatments for rising damp, however, is that their limited use can arrest the slow deterioration of materials, and if care is used, the historic character of the resource can be preserved. It is the responsibility of the preservation architect or administrator to ensure that a sensitive installation job is undertaken to preserve the historic building.

## Treatments

The first approach for dealing with rising damp is to eliminate as much excessive ground moisture as possible. This may include regrading, installing proper gutters and downspouts, providing good area-way drains, and evaluating any ground watering systems that are close to the building foundation. The next step is to try to control the moisture within the building and allow trapped moisture to breathe. For example, are the basement or crawl spaces adequately ventilated? If not, then dehumidifiers, ventilating fans, heat, or operable vents should be considered. Have vapor impermeable masonry paints and coatings been applied to the building that are holding moisture in the wall? These should be removed or at least identified as contributors to the problem. Rising damp that is not causing structural decay may be treated solely by regular monitoring to ensure that it stays within manageable limits.

If in monitoring a building, it becomes apparent that rising damp is causing serious deterioration, more radical treatments may be necessary. While the National Park Service does not recommend extensive removal or alteration of historic materials, there may be some situations where serious decay will require major intervention, for example where the structural integrity of a floor joist system has been undermined by dry rot fungus caused by excessive moisture in the bearing walls. If the flooring must be replaced, it may be the time to consider ways to also reduce the moisture in the foundation walls to ensure that the replacement joists are not soon affected by the same situation.

The basic goal for treating serious rising damp is to stop the upward migration of moisture within the wall. This traditionally was achieved with the installation of a water-impermeable layer of slate or lead between a masonry joint just above the grade level. Because rising damp generally is a result of either no damp coursing or a damaged one, it is important to consider installing an effective one. This dampcoursing can be a **traditional physical** one using either the historic materials of slate or lead, or by inserting a modern heavy polyethylene sheet into the wall (see photo 2). Or the dampcoursing can be achieved using a modern system of **chemical** injection or infused resins to create a waterproof layer (see photo 3). Of the two methods of dampcoursing, the installation of a physical membrane is usually considered preferable to the chemical method. The injection method will not be fully effective if the chemicals have not totally saturated the masonry materials or if it has run out through undetected fissures in the wall. However, it is not always possible to use physical dampcoursing and chemical dampcoursing may be an acceptable alternative.

Installing dampcourse layers has been in practice for over 20 years in Europe and the United Kingdom. The development of core drilling equipment and diamond blade circular and tungsten-carbide tipped chain saws have facilitated the insertion of new dampcourses without structural damage to the building from vibrations. Not all new technologies have been successful for treating rising damp, however. There have been a number of cure-alls promoted for rising damp which have failed. These include the installation of ceramic or

porous tubes to allow the walls to breathe and the installation of an electroosmotic systems of copper wiring to halt capillary action. Neither has proven effective.

Physical damp-proofing is usually done on buildings with evenly coursed brick or porous stone where there is access to both sides of the wall. A physical slot is cut into the masonry or mortar joint just above grade level. Saws are used to cut through the masonry wall in alternating sections of three foot intervals to avoid structural weakening or collapse. Either diamond blade circular saws or tungsten-carbide tipped chain saws are used for cutting. Generally heavy reinforced black polyethylene sheeting is installed with new mortar. Slate shims are set in with the non-shrink mortar to provide a rigid wedge until the new mortar has set. Needless to say, there can be no active utility cables or pipes within the wall being cut with saws.

The chemical damp-proof method of installing dampcourses is more often selected for a variety of reasons. It is more difficult to ensure complete effectiveness than the physical dampcoursing, but it is generally less expensive and quicker.

In some cases it is used if there is not complete access to both sides of the wall, or if the coursing is not even, or if structural failure might result from cutting the walls, piers, or columns. Chemical dampcourses are generally installed by drilling port holes into the masonry and then saturating the masonry with chemical solutions. One system is the Massari system which uses polyester resins or epoxy grouts which are injected into rather large (1- 1/2 ") overlapping holes and which form a solid continuous impervious layer upon curing. A similar system uses smaller holes set farther apart with chemicals injected under pressure or infused using gravity. The chemical solutions are either water-based with silicates or spirit-based with either silicone or aluminum stearate. The choice of chemicals depends on the physical environment and materials of the substrate. Injection is either in the mortar joint or in the masonry if it is adequately porous. Evenly coursed cavity walls can be injected from each side.

Chemical injection, however, is not always possible or successful; If the walls are extremely wet, or are irregularly constructed with rubble fill, or the materials are inconsistent in their ability to absorb, the treatment may not provide adequate dampcoursing. In addition, the chemical composition of some mortars may be so alkaline that the resins will not cure properly. A reputable company with experience in chemical injection will design and ensure that the chemicals used will be compatible with the individual resource. In most cases dealing with historic buildings, chemical dampcoursing using ports drilled on the exterior of the building will be too disfiguring and would drastically alter the historic appearance of the property.

## **Conclusion**

The treatment of serious rising damp in historic buildings requires thorough evaluation and testing in order to fully understand the building, its site, and its internal problems. As with any deterioration issue, the approach should be a conservative one that ensures that all the basic choices for diverting or controlling the moisture have been tried or eliminated before more radical procedures are tried. For any invasive treatment that involves removing, replacing, or altering historic materials, care must be taken to evaluate the impact to the historic resource prior to selecting a remedial treatment. In the second part of this series, case studies will be presented that show the range of preservation options available for dealing with rising damp.

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# The NPS Historic Landscape Initiative: Developing National Standards for the Treatment of Historic Landscapes

Lauren G. Meier

The last 50 years have seen a great evolution in the field of landscape preservation, from the recognition that historic and cultural landscapes are important and indeed worthy of documentation and protection, to advancements in preservation technology. The National Park Service, the Federal agency charged with national policy related to historic preservation, spearheaded some of the first efforts to preserve historic landscapes. In the 1930s, the preservation and partial restoration of the Colonial and Civil War battlefields at Yorktown may have been the first efforts to recognize the importance of landscape features as evidence of the layers of American history. Today, we recognize a broad range of historic landscapes including historic sites, historic scenes, historic designed landscapes, and rural/vernacular landscapes.

Two recent publications produced by the NPS, *National Register Bulletin 18: How to Evaluate and Nominate Historic Designed Landscapes* and *Bulletin 30: How to Identify, Evaluate, and Nominate Rural Historic Landscapes*, have greatly enhanced our ability to effectively identify the features and representative types of designed and vernacular landscapes. However, despite the fact that general agreement seems to exist regarding the importance of inventorying and evaluating historic landscapes we still do not have full consensus on terminology, philosophy, or treatment. As a result, the perennial question still remains: once we know a landscape is significant, what do we do with it?

The existing *Secretary of Interior's Standards and Guidelines for Historic Preservation Projects* provide direction for the treatment (preservation, restoration, protection, stabilization, rehabilitation, reconstruction, etc.) of historically significant structures. These standards generally address the "building site" and the "district/ neighborhood" but provide very little direction for the treatment of historic landscapes whether or not they are associated with significant buildings. To address this need and offer technical assistance regarding landscape preservation, the National Park Service has begun an initiative to develop standards and guidelines for the treatment of historic landscapes.

## Developing the Standards

The primary focus of the landscape initiative is to prepare the Secretary of Interior's standards and guidelines for the treatment of historic landscapes. Standards provide an overall philosophy and general principles which apply to all treatments, while guidelines provide more specific direction for applying the standards for each treatment. Once developed, they may be used to guide preservation work on all significant landscapes listed on the National Register of Historic Places. The effort is being coordinated in the Preservation Assistance Division, with participation from the Park Historic Architecture Division and regional offices.

The standards are also being developed with assistance from several professional organizations including the ASLA Open Committee on Historic Preservation, the Alliance for Historic Landscape Preservation, the ICOMOS Committee on Historic Gardens and Sites, and the National Association for Olmsted Parks, as well as individuals with expertise in rural and designed landscape preservation, historic landscape architects and resource specialists.

The first task in developing the standards is determining the basic approach or philosophy. To do this, NPS is presently grappling with a host of issues including the

inherent differences between designed and vernacular landscapes and how to treat the dynamic nature of landscapes. Since vegetation maintenance is sometimes considered a preservation treatment, the standards may offer general principles regarding landscape or vegetation maintenance and management, including replacement of plant material.

In addition many different preservation approaches are currently accepted and practiced in historic landscapes, making the task of consistent standards even more difficult. For example, the building standards require that new construction be designed to appear noticeably distinct from the historic fabric. In historic landscapes, new plantings, pavings, or site furnishings are often designed to blend with or replicate the "historic character." Does this solution produce a false historic appearance or is it an acceptable solution? Another point of divergence revolves around features that were designed and never constructed. For historic buildings, the acceptable preservation approach would not allow for the construction of these features. In landscapes, missing elements often result in poor circulation or patterns of use, or the failure to realize the original design intent. Clearly, issues such as these must be resolved before we can begin to draft the standards.

The process for developing the text for the standards and guidelines will involve input from many disciplines and organizations devoted to landscape preservation, as well as input from individuals who will actually use the standards. The process will require many meetings, discussions, and workshops before the draft standards are officially published in the *Federal Register* for public comment, sometime in late 1990.

## **Conclusion**

Landscape preservation has evolved from the protection of individual landscape elements, to the recognition of the importance of landscape research and documentation. Today, landscape preservationists speak of the importance of the preservation of historic plant varieties and of global threats to our historic landscape legacy. We understand that natural resource protection and cultural resource preservation are inextricably linked. Still, the practice of historic landscape preservation is varied, in some cases arbitrary and speculative.

It is clear that historic landscape preservation has reached a critical juncture; the Secretary of Interior's Standards are an important next step in the evolution of the profession. Not only will they be of use to professional landscape architects and preservationists, they will also set the direction for "good preservation practice" related to historic landscapes.

## **Upcoming Conferences with Historic Landscape Interest**

**May 4-6, 1990**

**Olmsted Strategy for the Year 2000: A New Decade of Park Preservation**

**National Association for Olmsted Parks Conference**

**Buffalo, New York**

For information, contact the NAOP: 5010 Wisconsin Ave. N.W. Suite 308  
Washington D.C. 20016 (202) 362-9511

**June 5-7**

**Preservation Challenges for the 1990s: A Conference for Public Officials**

## **Washington D.C.**

Sponsored by the National Park  
Service  
Advisory Council on Historic  
Preservation  
National Conference of State Historic  
Preservation Officers  
General Services Administration

For information write:  
Preservation Challenges Conference  
National Park Service, 424  
P.O. Box 37127  
Washington D.C. 20013-7127  
(202) 343-9578

## **June 14-17, 1990**

### **Alliance for Historic Landscape Preservation Annual Meeting**

### **Seattle and Olympic National Park, Washington**

For information, contact:  
Tim Keller, President (804) 295-3880  
Cathy Gilbert, NPS: (206) 442-0791

## **October 19-21, 1990**

### **National Association of Olmsted Parks Conference**

### **Yosemite National Park, California** (In conjunction with the Yosemite Centennial)

For information contact the NAOP:  
5010 Wisconsin Ave. N.W.  
Suite 308  
Washington D.C. 20016  
(202) 362-9511

## **October 25-26, 27-30, 1990**

### **American Society of Landscape Architects Historic Landscape Symposium and Annual Meeting**

### **San Diego, California**

For information, contact the ASLA

4401 Connecticut Ave., N.W.  
Washington, D.C. 20008-2302  
(202) 686-2752

### **For More Reading**

Andropogon Associates, Inc. *Earthworks Manual*. Washington D.C.: National Park Service, Park Historic Architecture Division. 1989

McClelland, Linda; J. Timothy Keller; Genevieve P. Keller; and Robert Z. Melnick. *National Register Bulletin 30: How to Identify Evaluate, and Register Rural Historic Landscapes*. Washington D.C.: National Park Service, Interagency Resources Division. Draft. 1989

Stokes, Samuel, and A. Elizabeth Watson. *Saving America's Countryside: A Guide to Rural Conservation*. National Trust for Historic Preservation. Baltimore, Maryland: Johns Hopkins University Press. 1989

Tishler, William (Editor). *American Landscape Architecture, Designers and Places*. Washington D.C.: The Preservation Press. 1989

### **Upcoming Publications**

Ranney, Victoria Post; Gerald Rauluk and Carolyn Hoffman (Editors). *The Papers of Frederick Law Olmsted, Vol 5: The California Frontier, 1863-1865*. Baltimore, Maryland: Johns Hopkins University Press. Anticipated in print Fall 1990.

National Park Service. *Preserving Historic Landscapes: An Annotated Reading List*. Washington D.C.: Preservation Assistance Division. Anticipated in print Summer 1990.

# Archeological Assistance Program

## Information Report

### *A National Strategy For Federal Archeology*

Francis P. McManamon

Progress in Federal archeology, broadly defined to include the archeological activities of land managing agencies, agencies that provide funding for or undertake development activities, and agencies that regulate development, would benefit from the identification of a list of broad areas for intensified, concerted activity. Such a list of common concerns should be used to describe and focus Federal archeological preservation, interpretation, and management by presenting in a short, understandable format the major archeological challenges confronting Federal agencies. It could be used within agencies/ departments/bureaus to argue for the resources necessary to meet these challenges more effectively.

The list also could be used to identify for Congress, foundations, professional organizations the programs and projects to which agencies give highest priority. Specific agency objectives and tasks could be identified as parts of a common, national effort to preserve America's archeological heritage. Such unity of purpose would gain support for archeological preservation both within agencies and from other organizations and individuals.

This list could serve as the core of a statement by level officials supporting archeological preservation. The statement would not commit agencies to specific actions or levels of funding. However, it would highlight topics for special emphasis. Individual archeologists or preservationists working on projects or programs would be able to use this formal support by senior Administration officials within their offices to argue for improvements in their archeological programs. Such a strategy would have practical applications at the national, regional, state, and local levels within agency programs.

In July 1989, a memo was circulated to archeologists at the headquarters offices of Federal agencies, Federal Historic Preservation Officers, and a few others suggesting the development of such a national strategy. Distributed with this memo were copies of the last chapter of *Federal Archeology: The Current Program*, giving a detailed description and analysis of Federal archeological activities. This chapter identifies four general areas that should be emphasized to improve Federal archeology:

1. Inventory and evaluation of archeological sites and the curation of archeological collections and records;
2. Sharing of information about archeological properties, reports, projects, and other activities among agencies;
3. All out efforts to apprehend those who loot Federal state, local, tribal, and private archeological properties; and
4. Emphasis on public education, outreach, and involvement activities as part of Federal archeological programs and projects.

With the help of the Bureau of Reclamation, an open meeting to discuss a national strategy for Federal archeology was held on December 4, 1989, in conjunction with a general meeting of Federal historic preservation officials in Denver. About 30 individuals attended this national session. Among the attendees, most of whom participated in the discussion during the session, were representatives of the Bureau of Reclamation, Federal Highway Administration, Environmental Protection Agency, Forest Service, Advisory Council on Historic Preservation, Federal Energy Regulatory Commission, and National Park Service. Also participating were the National Institutes of Health, Army, both the

military branch and the Corps of Engineers, Air Force, Society for American Archaeology, Soil Conservation Service, and Office of Surface Mining, Reclamation and Enforcement.

There was general agreement that these four areas of activity cover many of the specific challenges facing archeologists and others concerned about Federal archeology. Several topics within these areas were singled out during the discussion. The curation of collections and records, the sharing of information and expertise through training programs, and concerns about the repatriation to Indian Tribes of portions of collections were mentioned several times.

Most frequently discussed was the need for more and better public outreach, whether through better press coverage, improved interpretation, or public involvement projects. Public outreach was highlighted constantly during the session. This strong interest suggests that public outreach activities should be at the top of the list. Several speakers suggested that the very positive results from public outreach could be used to make progress in other necessary, but less exciting, areas of curation, inventory, evaluation, anti-looting activities, and interagency information exchange.

The next step in developing a national strategy will be to formalize a list of general areas for emphasis and a statement for review and official approval. Comments generated by the July memo and the December meeting, and responses to this announcement will be taken into account in this effort. Individuals interested in commenting are encouraged to do so either through their headquarters archeological staff or directly to Francis P. McManamon, Chief, Archeological Assistance Division, National Park Service, P.O. Box 37127, Washington, DC 200137127; telephone (202) 343-4113.

Dr. Francis P. McManamon is Chief of the Archeological Assistance Division, National Park Service, WASO.

# Archeological Assistance Division of the National Park Service

Juliette G. Tahar

The Archeological Assistance Division (AAD) provides Federal and state agencies with technical assistance on the identification, evaluation, and preservation of archeological properties, including limited technical assistance on specific projects for the recovery of important archeological and historic data threatened with damage or destruction by Federal undertakings.

The division conducts meetings, activities, and programs to coordinate Federal archeological activities. It prepares the annual report to Congress on the Federal archeological program and maintains several databases, the National Archeological Database (NADB), the List of Education in Archeology Project (LEAP) and LOOT, which is a clearinghouse of information on prosecutions for looting and vandalizing archeological resources on public lands.

The AAD offers training for Federal and state agencies and provides staff support to the Departmental Consulting Archeologist, who also serves as the Assistant Director, Archeology. The Washington office staff of AAD develops regulations and other policy documents and coordinates national policy through liaison with field offices of other agencies and State Historic Preservation Offices.

Since 1988, the AAD has committed itself to reach the archeological community by developing a publication program. Of particular interest to *CRM Bulletin* readers are AAD's newsletter, *Federal Archeology REPORT*, and AAD's series of technical briefs.

The *Federal Archeology REPORT* is published quarterly and focuses on Federal and state archeological activities. The technical briefs are published four to six times a year, address technical issues pertaining to archeology and examine case studies that demonstrate the effectiveness of archeological programs.

Both are designed to improve communication, cooperation, and exchange of information among Federal archeologists, local governments, state agencies, and private organizations and individuals.

Following is a list of publications that are presently available, at no cost, from AAD.

1. ***Federal Archeology REPORT***. Back issues (Volume 1, issues 1-3; Volume 2, Issues 1-4; Volume 3, Issue 1) are available.

## **2. Archeology Assistance Program Technical Briefs.**

Technical Brief No. 1: *FILTER FABRIC: A Technique for Site Stabilization* by Dr. Robert M. Thorne, Center for Archaeological Research, University of Mississippi, 1988.

Technical Brief No. 2: *Arizona Archaeology Week: Promoting the Past to the Public* by Teresa L. Hoffman and Shereen Lerner, State Historic Preservation Office, National Park Service, 1988.

Technical Brief No. 3: *Archeology in the National Historic Landmarks Program* by Robert S. Grumet, Archeologist, Mid-Atlantic Regional Office, National Park Service, 1988.

Technical Brief No. 4: *Archeology in the Classroom; A Case Study from Arizona* by A.E. Rogge and Pati Bell, Arizona Archaeological Council, Archaeology for Schools Committee, 1989.

Technical Brief No.5: *Intentional Site Burial: A Technique to Protect Against Natural or Mechanical Loss* by Robert M. Thorne, Center for Archaeological Research, University of Mississippi, 1989.

Technical Brief No. 6: *The Kentucky Archaeological Registry; Landowner Participation in Site Preservation* by A. Gwynn Henderson, Kentucky Nature Preserves Commission.

**3. Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines.**

**4. Archaeological Resources Protection Act of 1979 (ARPA).**

**5. Archaeological Resources Protection Act of 1979; Final Uniform Regulations.**

**6. 1988 Amendments to the Archaeological Resources Protection Act of 1979.**

*To order publications, please use form on page 16.*

Juliette G. Tahar is a consultant for the National Conference of State Historic Preservation Officers. She provides services as a publication specialist in the AAD.

# Computer News

## The Community Bulletin Board(s)

**Betsy Chittenden**

Bored with the same old cultural colleagues? Want to meet new people, compare notes, check out vacancies? Two new computer bulletin boards (abbreviated BBS) oriented to those interested in cultural resources are getting off the ground. One is for NPS and other government users only; the other is available to the public at large, free of charge. To access both bulletin boards you will need a PC, a modem, and some type of communications software package (such as ProComm or CrossTalk). Once you have signed in, these bulletin boards will allow you to send messages, broadcast queries or questions, upload and download files, and generally find and communicate with people with similar interests.

The public BBS is run by Jim Walker of the Institute of Metal Repair in San Diego. Jim's BBS is free of charge for those interested in historic preservation (all preservation, not just metal repair). To get on, your modem must be running at 300,1200, or 2400 baud, and you should set your communications software for 8 databits, 1 stop bit, and 0 parity (follow the instructions for your particular communications software). Have the software dial 619-480-9641. When the computer displays that you are "CONNECT"ed, press Control-C. You will be asked to type in your first and last names, and to give yourself a password (write it down!). You're in for 70 minutes. There are several levels of access in this BBS—a standard procedure by which the BBS Systems Operator (or "SYSOP") maintains some control over who uses the BBS and ensures that only people with serious interest have access to certain functions. Look around, introduce yourself to Jim (who may suddenly break in on your screen and "talk" to you directly), and leave a message if you like.

The NPS BBS is actually a part of the CompuServe electronic mail service, called the NPS Forum. To get onto the Forum, you must first get onto CompuServe, which requires that you have a CompuServe ID number. (Call Carl Zaner in Washington at 202/FTS 3431268 if you don't already have a CompuServe ID, or if you have forgotten your ID number and password.) Once onto CompuServe, choose #3, the NPS Forum choice.

Forum allows you to compose, send, read or receive messages, just as CompuServe does, but you can "broadcast" them to large numbers of people. The Forum has been organized into several interest groups, such as administration, natural, cultural, to make it easier to reach people interested in particular topic areas. Another feature is the member directory, where Forum users list their name, address, and areas of interest, and search for people with similar interests to communicate with. (Make sure to enter yourself in the directory, so that others can find you).

Finally, the Forum has a library function that allows the uploading and downloading of files of general interest. The Forum has good menus, so that you can get around with a manual, but if you want instructions, they are available on-line at the first menu. Remember, whenever using CompuServe or Forum that entering "m" at any time will get you back to the previous menu.

# Dogwatch

**James P. Delgado**

*"Dogwatch" is the term traditionally used for the two-hour watch during which half the ship's crew eats supper and swaps stories.*

The units of the National Park System contain more than 2,250,000 acres of submerged land, an area equal to the size of Yellowstone National Park. Yet more is known about the most remote parts of Yellowstone than about these underwater areas. There are 80 parks which lie on or near large bodies of water, including well-known parks like Channel Islands, Isle Royale, Virgin Islands, Cape Hatteras, Biscayne, or Fort Jefferson. There are lesser-known areas, too, including parks on rivers or smaller lakes.

The most famous underwater resources are shipwrecks. The sunken remains of ships, be they Spanish pataches, fregatas, or galleons lost in the 16th or 17th centuries; the battered iron hulls of square-riggers wrecked in the 1880s; or the torn and twisted remains of a World War II warship intrigue and fascinate people. Combined with the thrill of diving, shipwrecks are sunken ghost towns compelling exploration. Sport diving is increasing in the United States; more than three million people are registered divers, and each year thousands more learn. With new diving technology and increased public interest, the undersea world is opening up.

The National Park Service's parks are and will continue to be actively dived. In 1988, 42 parks reported sport-diving activity. In order to properly protect, preserve, and interpret the submerged resources of the National Park System, the Service is working beneath the water. For the past 10 years, the National Park Service has aggressively pursued an understanding of the submerged parts of the parks, establishing regional and park dive teams and conducting surveys of submerged natural and cultural resources. The National Park Service also has the Federal Government's only field team of underwater archeologists—the Submerged Cultural Resources Unit—which works around the country and abroad on shipwrecks in and outside of the parks.

Established in 1974 as the National Reservoir Inundation Study at the Southwest Regional Office of the NPS at Santa Fe, New Mexico, the team first worked on prehistoric sites inundated by reservoir construction. Six years later, with that task largely completed and a three-volume study marking their effort, the team was transformed into a Servicewide underwater archeological unit, headquartered in Santa Fe. The team is now, as it was then, headed by Daniel J. Lenihan, a New York City-born archeologist and cave diver. Larry Murphy, a Florida native who once worked as a state agent monitoring the destructive activities of treasure hunters in the Caribbean, is one of two other full-time archeologists in the unit. Toni Carrell, a prehistoric archeologist now working on historic shipwrecks, was the third member of the team until she departed for a new job working with the remains of 16th-century ships of discovery. Mike Eng, a former NOAA research diver and park ranger and now the unit's research diving technician, was the fourth full-time member of the unit until recently, when he left to assume the duties of chief ranger for Fort Jefferson NM. Secretary Fran Day runs the office.

Other NPS employees are occasional members of the team. They include archeologist Larry Nordby, chief of the Branch of Cultural Research at the Southwest Cultural Resources Center, archeologist Jim Bradford, scientific illustrator Jerry Livingston, both at the Southwest Cultural Resources Center, Jim Koza, the park dive officer at Lake Mead NRA, and the author, the Service's maritime historian. The Submerged Cultural Resources Unit ranks swell with many projects, as rangers, maintenance staff, and volunteers work in the water and on the boat with the team. Annual dive workshops sponsored by the Service are

occasionally taught by unit personnel in the various regions, allowing park staff the opportunity to learn "hands-on" underwater archeological survey and mapping.

The Submerged Cultural Resources Unit, in the past nine years, has worked in more than 25 parks and in the former Trust Territories. Major projects have included a five-year survey of 10 historic shipwrecks at Isle Royale National Park in Lake Superior. The cold, fresh waters of the lake have remarkably preserved wooden hulls—even human bodies—from wrecks dating from the 1870s, and steel freighters of the 1920s. Other shipwreck surveys have included work at Point Reyes National Seashore and Channel Islands National Park, in California, and documentation of wooden shipwreck remains on the beach at Golden Gate National Recreation Area and Cape Hatteras National Seashore. Individual shipwrecks have been intensively studied, including the near-intact hulk of *Frances*, a British-built bark wrecked in 1875 that lies in the surf at Cape Cod, and *Charles H. Spencer*, a sternwheel steamer built, disassembled, and rebuilt in the Arizona desert, only to be abandoned within a few months, whose remains lie at Lees Ferry at Glen Canyon National Recreation Area.

After identifying shipwrecks in the parks, the next priority of work is surveying wrecks in the former Trust Territories and studying wrecks being considered as National Historic Landmarks. At the request of the Columbia River Maritime Museum, a small wooden brig at the mouth of the Columbia River in Oregon was studied by the team in 1987. Identified as the 1830 wreck of the Hudson's Bay Co. supply ship *Isabella*, the wreck is now pending a decision on National Historic Landmark designation. Work on the two remaining victims of the Japanese attack at Pearl Harbor, USS *Arizona* and USS *Utah*, both sunk on December 7, 1941, resulted in these important vessels and national shrines being designated NHLs in early 1989. Projects looking at other World War II shipwrecks involved a shipwreck and downed aircraft survey in the Republic of Palau in 1988, a survey of five warships sunk at Bikini Atoll lagoon during the epic "Operation Crossroads" atomic bomb tests of July 1946, and a survey of sunken ships, a submarine, and aircraft in Kiska harbor at the tip of Alaska's Aleutian Islands in 1989. These warship studies are part of Project Seamark, a cooperative venture with the U.S. Navy.

While emphasizing report writing and publications in 1989 and 1990 to more broadly interpret the results of years of National Park Service leadership in American underwater archeology, the unit plans some exciting field projects. A detailed survey of Fort Jefferson National Monument's shipwrecks, similar to that done earlier for Isle Royale National Park, will begin this summer. At the request of the Department of Energy and the Marshall Islands, five members of the team will return to Bikini Atoll in April 1990 to survey more of the 13 major warships sunk there in 1946. Wherever they go, and whatever they do, the Submerged Cultural Resources Unit is a highly productive, highly visible program. The ultimate goal is a complete survey of the 2,250,000 submerged acres in the National Park System and the evaluation of the hundreds of shipwrecks thought to be in the parks. The success of the unit, however, relies heavily on cooperation, largely through the involvement of dedicated park rangers and maintenance workers who work side-by-side with the team and then take the skills they have learned into the field for the day-to-day challenge of protecting, managing, and interpreting the bold new underwater frontier.

### **Reports Available**

Single copies of three recent reports of the Submerged Cultural Resources Unit are available if requested on institution or organization letterhead. Requests should be addressed to: Chief, Submerged Cultural Resources Unit, Southwest Regional Office, NPS, P.O.

Box 728, Santa Fe, NM 87501. The reports are:

James P. Delgado and Stephen A. Haller, *Submerged Cultural Resource Assessment: Golden Gate National Recreation Area, Point Reyes National Seashore, and Gulf of the Farallones National Marine Sanctuary* (1989)

C. Patrick Labadie, *Submerged Cultural Resources Study: Pictured Rocks National Lakeshore* (1989)

Daniel J. Lenihan, ed., *Submerged Cultural Resources Study, USS Arizona Memorial and Pearl Harbor National Historic Landmark* (1989)